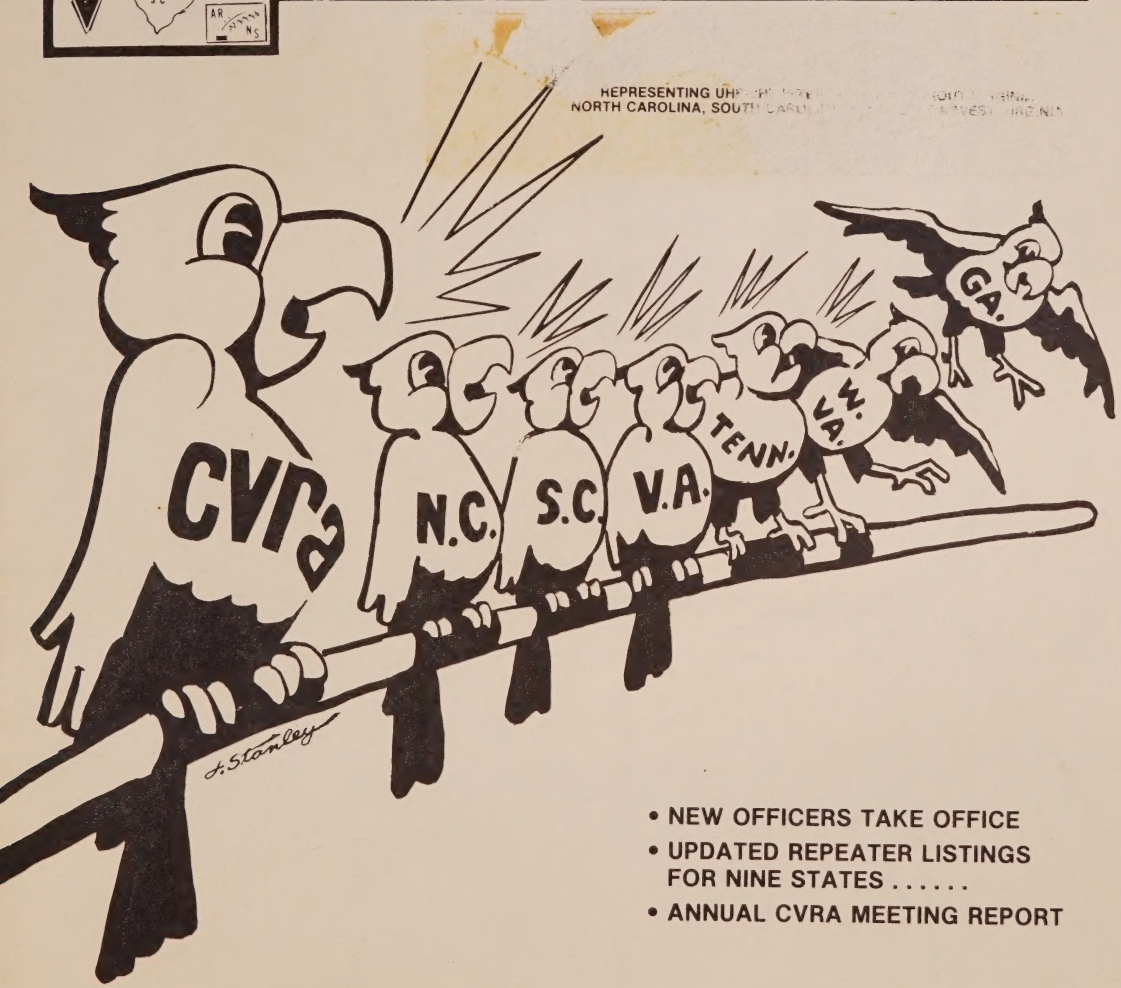
REPEATER JOURNAL

NATIONAL AWARD WINNER

CAROLINAS - VIRGINIA REPEATER ASSN. INC

FEBRUARY, 1980 "IN OUR 9th YEAR" VOLUME 9, NO. 1



- NEW OFFICERS TAKE OFFICE
- UPDATED REPEATER LISTINGS FOR NINE STATES . . . . . .
- ANNUAL CVRA MEETING REPORT

FOR THE DEDICATED AMATEUR

1980 Charlotte Hamfest

MARCH 22-23

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REPEATER JOURNAL

CAROLINAS - VIRGINIA REPEATER ASSN. INC

FEBRUARY 1980 "IN OUR 9th YEAR" VOLUME 9, NO. 1

ORGANIZED 1971

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ON THE COVER

The CVRA Parrot is getting lots of company these days. Art courtesy of Jim Stanley, artist in Creative Services, Piedmont Pub. Co., Winston-Salem, N.C.

EDITORIAL COMMENT

1980 Will Be A Fine Year . . . . .

Some years from now, we'll look back on 1980 as a milestone for the CVRA. This is the year the organization will probably double in size.

We reported last issue about Tennessee voting to come into our group. They are progressing well toward that end. As of this writing, 15 repeaters had already joined as full members, and almost 100 associate members are on our roster. We will probably be able to report 35 to 50 repeater memberships and several hundred associates in our May issue of the Journal.

In late December, we received word that West Virginia wants to go with us also. Much correspondence and many phone calls have been passed between here and there and things are beginning to take shape. Obviously few repeaters made it as full members before the Journal deadline, but we will probably see dozens of memberships streaming in during late January and February. Associate memberships in West Virginia will pick up in Spring when more mailouts and information is reached by West Virginia amateurs. Early efforts

Continued On Page 20

YOU ONLY GET OUT WHAT YOU PUT IN . . .

Over the past few months, I've had occasion to speak to several groups of amateurs, and discuss the CVRA with many individuals. One of the first questions that seems to pop up is: "Why should we join the CVRA, what's in it for us?" "Why should be support some organization out of our territory?"

My reaction to those questions was surprising to them. I told them that the CVRA was not out begging new States to join our organization, just for the sake of numbers. Unless a State of amateurs really wants to get into the thick of things, and participate as a coordinated body within their State and abide by the rules of the CVRA as we do, then they would get nothing, there would really be no need to join.

"However," I told them, "if your area is willing to work with the CVRA organization in membership, coordination, and elect good people into the

Continued On Page 29

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WEST VIRGINIA REPEATERS OWNERS VOTE TO JOIN CVRA

-by Wayne C. Williams, K4MOB

The first inkling we had of West Virginia seriously considering the CVRA was in November. Several telephone conversations with Don (Andy) Anderson of Bluefield confirmed the fact. Andy put me in touch with Mike Palmer, K8LG of Morgantown, chairman of the West Virginia Repeater Advisory Committee, and Karl Morris WB8GDY of St. Albans, President of the West Virginia State Amateur Radio Council.

Both gentlemen were anxious for information regarding the CVRA, so a long letter, explaining everything about the organization was mailed to them, along with Journal copies, applications, repeater indexes and Constitution and By-Laws.

At the December meeting of the West Virginia Repeater Advisory Council, the CVRA was discussed at length. The letter was read to the group and comments were made. The result of the meeting, was a unanimous vote to proceed toward joining the CVRA.

As a result of the meeting, a cover letter by Mike Palmer, including the letter explaining the CVRA, full membership applications, and a repeater index with an associate membership application has been mailed to every repeater club and group in the state.

Karl Morris drove to Greensboro for the CVRA annual Directors meeting and discussed West Virginia and their proposed entry into the CVRA. The Board of Directors sent Karl home with the message: "If and when West Virginia is ready to join the CVRA, we welcome you and eagerly stand by to offer any assistance we can provide."

At press time for this story, we have no further information as to the progress of West Virginia. The letters were received by most repeater owners the first week of January.

In part, Palmer wrote to the repeater owners, "For those of you who may not be familiar with the CVRA I have enclosed a letter which explains the CVRA. The reasons put forth for West Virginia affiliation with CVRA are many."

"It was the opinion of those representatives present that CVRA had much to offer to West Virginia Repeater groups and that much of the work in organization which they have already done could be used in our state."

Palmer also explained memberships, full and associate in his letter. He requested repeater owners to mail their full membership application to him, so he could tell when the necessary 10 repeater memberships were obtained for entry into the CVRA. He said once ten memberships were processed, they would be forwarded to Karl Thompson K8KT, ARRL SCM for West Virginia to be sent to the CVRA.

It is very fortunate that our friends to the west have decided to join the CVRA. Our CVRA directors have been coordinating with West Virginia for years on State border repeaters. With their inclusion in the CVRA, our job and their job will be much easier.

Welcome, West Virginia repeaters and Amateurs, we are very proud and happy to have you join us. We shall both profit and strengthen through this union.

NEW CVRA PRESIDENT SETS GOALS FOR ORGANIZATION

Lane Tarleton, WA4ZQQ in his comments before the CVRA Board of Directors and Appointees said he was going to be a hard working president. "I have faith in the CVRA, and am now very pleased to be able to participate as president of the organization."

Among goals Tarleton said he would like to see achieved this year in the CVRA: (1) More Technical input in the Journal. (2) We need more recognition and clout nationwide. (3) Promote competition within the CVRA, contests, awards. (4) Hand out applications for membership everywhere. Get chairmen in each state responsible for setting up booths at all hamfests within his district. Get the CVRA public relations going into clubs, organizing programs about the CVRA for clubs and provide speakers and visual aids. (5) FCC representation in Atlanta, Washington, D.C. and Norfolk to provide current up-to-date information.

Lane also mentioned that with West Virginia and Tennessee coming into the CVRA our communications lines will have to be improved and new information channels made available so that every Director in every District will be kept up-to-date with every new CVRA happening.

The new president who was installed by Phil Wicker, W4ACY, Roanoke Division Director of the ARRL, suggested a 2nd Annual board of directors meeting be called in early Spring to help indoctrinate the new Directors from the new districts of Tennessee and West Virginia. The site of the Charlotte Metrolina Hamfest in March was suggested as a good time. He said announcements of time and place would be forthcoming.

Tarleton praised the Directors and appointees for the job they had done over the past year. He reinstated the appointment of the Publications Chairman, Wayne Williams, K4MOB, and Al Ross, K4CAW as Frequency Coordination Chairman. Larry McLaurin, WB4VJE, Associate Membership Chairman was also asked to remain on the job as was Bill Paige, WB4LWX, Full Membership Chairman. (The appointed chairmen to these committees are appointed by the President.) Each of the appointees had given the new president their resignation, enabling him to make changes if he desired. He reinstated each to continue in their job.

CVRA ANNUAL MEETING HELD IN GREENSBORO DEC. 29

The CVRA Annual Board of Directors meeting was held in Greensboro on Dec. 29, at the Airport Holiday inn.

Phil Wicker, W4ACY, Roanoke Division Director of ARRL installed the four new officers elected for the 1980-81 term. Wicker presented the group with a brief Biography of each of the new officers, then wished them well and success for the coming term of office.

Installed as new CVRA officers were: Lane Tarleton, WA4ZQQ (S.C.) as President; Ted Goldthrope, WA4VCC (S.C.) Vice-President; Michael K. Williams, WA4JIY (Va.) Secretary, and Carl Smith, N4AA (N.C.) was elected to a 2nd term as Treasurer.

The meeting was called to order at 9 a.m. by Wayne Williams, K4MOB, Publications Chairman in the absence of the former President and Vice President. After a brief welcome and introduction of all present, the meeting was turned over to Phil Wicker, who spoke about the ARRL and the CVRA. He then presented the new officers and installed them.

Lane Tarleton, President then chaired the meeting. Reports were heard from Membership, Associate Membership, Publications Committee and the Treasurer.

Each District Director then presented reports of their area, discussed new repeaters and problem areas. The only problem areas reported included interference complaints from the Lynchburg 01-61 repeater against the Greensboro 01-61 repeater. President Tarleton said he would make arrangements with the Virginia and North Carolina Director to set up a meeting to try to solve this problem.

Another problem area with limited discussion was the limited interference between Charlotte (N.C.) and Greenville (S.C.) on 34-94. Also the age old problem between Pisgah and Kingsport on 16-76 was briefly mentioned.

It was brought up before the meeting the question as to whether the CVRA was condoning interference if a repeater accused of interfering with another were allowed to join the CVRA as a full member. The board agreed that the CVRA certainly didn't condone such a problem, but the question arises, how could the CVRA certify just who is the interferer, and who the interferee. Also the problem of screening every repeater that comes in as a full member as a potential complaintant was discussed. The question of who was coordinated and who wasn't would enter into the picture, with many old repeaters especially who has been on the air before the CVRA was organized. The subject was deferred until a later date.

In other action, the Board of Directors unanimously granted Phil Wicker, W4ACY with the CVRA's first Life Membership. Wicker was cited for his unselfish time and assistance over the past years in assisting the CVRA in membership and communications, although he has never served in an official capacity with the organization.

Budget estimates for 1980 for the CVRA Journal were presented to the board. An estimate of over $8,200 was presented to publish the Journal quarterly in 1980 and repeater index handouts. Income from advertising in the Journal was estimated at $3,650 for the year, making a deficit of about $4,500 to come from Membership fees.

The board redefined budget availabilities to the Directors and appointees. These include reimbursement for postage and telephone in the line of duties

Continued On Page 44

GEORGIA ENTERS THE RUNNING COUNCIL POLLING MEMBERS

—by Wayne C. Williams, Editor

At its last meeting in early December, the Georgia Repeater Council reportedly discussed CVRA and the merits of recommending the State join the CVRA. A quorum was not present so no vote was taken, however, repeater owners present all were in favor of entering the CVRA as the Georgia District.

The "Key Up", official newsletter of the Georgia Repeater Council in its December issue contained a very nice writeup about Tennessee and West Virginia joining the CVRA. The paper also included instructions and addresses for joining as CVRA full member repeaters. An associate membership application was also printed in KEY UP.

At the bottom of the page, Editor David Nulty, N4ATI had a simple questionaire, "Do you wish Georgia to Become a District of CVRA," under the question was a yes or no line to check, and a place for the amateurs call and signature.

In conversations with the Journal, Nulty feels that the time is right for Georgia to come in, and he feels confident that the final tally will be affirmative. He said that perhaps many would go ahead and join either as full members, or as associate members from the application and instructions in the Georgia Newsletter.

The key phrase at the questyionaire in the newsletter reads: "Upon receipt of 10 full memberships by WB4LWX (Bill Paige, Full Membership Chairman, CVRA), Georgia will be eligible to become a district of DVRA."

Press deadlines for the Journal prevents any additional response or news converning this significant action. However we should be able to report complete details in the May issue of the Journal.

THE CVRA 1980 RENEWAL HONOR ROLL OF REPEATERS

Our repeater Honor Roll is larger than ever this year. A total of 85 Full memberships representing 115 different repeaters arrived with checks dated prior to Jan. 1, 1980. This compares with 67 last year and 28 in 1978. North Carolina lead with 41 memberships on the Honor roll, with Virginia gaining second place with 20. Our youngest district to be, Tennessee copped third with 15. Following were South Carolina with 8, Georgia with 3, West Virginia with 1 and Missouri with 1.

NC STATE ARRL CONVENTION CHARLOTTE HAMFEST MAR 22-23

The 1980 North Carolina State ARRL Convention and the Charlotte Metroliner Hamfest will be held at the Charlotte, N.C. Civic Center on March 22-23.

The convention/hamfest will feature many seminars, displays and programs for the dedicated Amateur. A massive flea market and new dealer show will spread across the large Civic Center. Several manufacturers will also be present to display new models of Amateur equipment.

The FCC will conduct examinations beginning Saturday morning at the same location.

Last year over 7,000 attended this event, with almost 1,000 taking FCC examinations. This will probably be one of the last FCC examinations given at hamfests in this area due to budget cutbacks by the commssion.

For further information write: Ken Winston, WA4OBO, Mecklenburg ARS, Inc. 245 Park Road, Charlotte, N.C. 28203. (704) 364-7685.

T—MARC ELECTS NEW OFFICERS

The Middle Atlantic FM and Repeater Council elected new officers at its annual meeting in December. The new president is Larry DiAnna, WA3KOK, replacing W3ENL. Elected as Vice-President of Operations & P.R. was William Werner, W3EAO. VP of Technical is J. Michael Cox, K3GEG and Secretary-Treasurer Willem Van Aller, K3CZ.

The VP/Technical reinstated the appointed role of Chairman of the Frequency Coordinating Committee to R. Gary Hendrickson, W3DTN. Also on the coordinating committee is one other past member, Cox, K3GEG and a current member. Bruce Carpenter, W3YVV of the ARRL VHF Repeater Advisory Committee (VRAC).

T-MARC does a very fine job of coordinating repeaters in Northern Virginia (adjacent to CVRA territory), D.C., Maryland and Delaware. They also coordinate the eastern panhandle of West Virginia, working closely with Calvin Basham, the West Virginia Frequency Coordinator who covers the more Western part of the State.

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VIRGINIA
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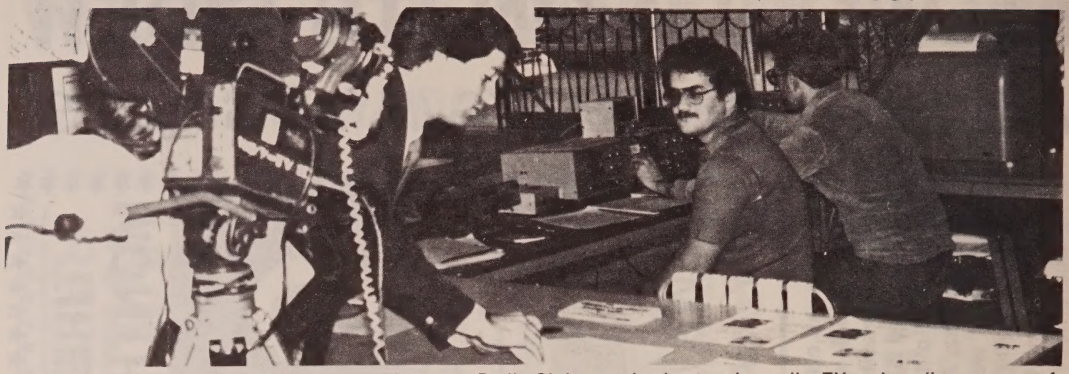

GREAT PRESS! The Virginia Beach and Tidewater Radio Clubs received extensive radio, TV and media coverage of their Amateur Booth set up in a major shopping mall in the Tidewater area of Virginia. The display included posters and pictures describing Amateur radio, traffic handling and ARES. (Photo by WA1WXL)

-by Neil Newstein, WD4RDF, EC Va. Beach

Question: How to explain to your community of over 100,000 people that Ham radio is a public service and not at all the same as CB. While at the same time providing A.R.E.S. members with experience in handling a large volume of traffic (such as would be experienced in an emergency).

Answer: A month long amateur radio exhibition in Va. Beach's largest shopping mall at the height of the XXmas Season.

Over 35 different amateurs from the Va. Beach A.R.E.S. and other Tidewater area clubs participated in what may be the longest running exhibition of amateur radio in U.S. history.

An Exhibition booth was set up in the very center of a major shopping mall. H.F., 2 meter, and 6 meter equipment was used to send traffic through the NTS system. SSB, FM, RTTY and most importantly CW modalities were used to send the traffic. 1037 messages (mostly of a seasonal nature) were accepted from stoppers by for delivery to every state of the union and to many military bases. Literally hundreds of people stopped by simply to ask questions about amateur radio, drawn by the magnetic pull of CW sent and being received at 35 wpm. Posters painted by students from the community colleges' graphic's department explained the National traffic system and the role of A.R.E.S. in local and national emergencies. ARRL. provided handouts to be distributed to persons sending messages or stopping by the display.

The exhibit was manned 6 days a week, afternoon and evening through out the entire month of December. We found that the number of persons sending messages increased during the month as word of mouth, TV and radio features, newspaper articles, and the general Xmas rush did their work. Fortunately AK4L (Gerry Hull) used his considerable skills in helping to pass the growing volume of traffic and providing consistancy at the display. Special message forms as well as other aides also maintained a high level of efficiency of the 31 days the exhibit was up.

Media coverage was quite extensive. We were featured on 2 evening TV'news programs, a mid morning TV talk show, a radio program and in several newspaper articles. A side benefit was that a large number of inactive hams stopped by the display and renewed or began their involvement in the ARRES. and the Va. Beach Radio Club. A significant number of non-hams expressed interest in the upcoming novice classes the club is sponsoring.

To sum up, the exhibition accomplished and surpassed our fondest dreams.

1. 1037 messages were sent, 75% by CW.
2. Over 35 local amateurs got experience in handling heavy traffic from a temporary location and in dealing with the "public."
3. Literally thousands of people were very pleasantly exposed to "ham radio".
4. A number of inactive hams were encouraged to "join up".

MESSAGES being filled out for sending

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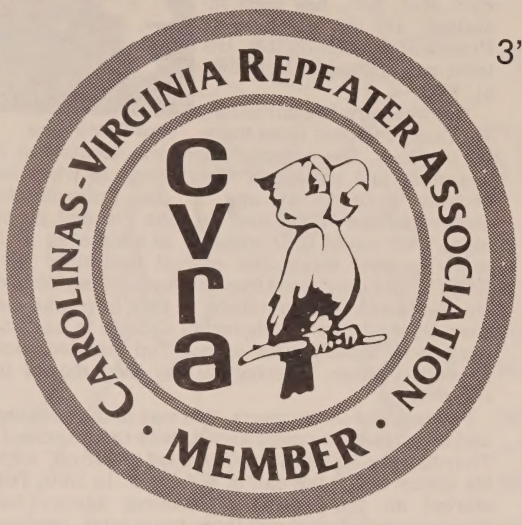

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Greetings from the Fayetteville/Fort Bragg NC

"RED CARPET REPEATER"

operating on 147.93/33 MHz. We cordially extend a personal invitation for you to use the repeater as often as you like. It is programmed to operate 24 hours daily and has emergency back-up electrical power. The repeater should give good coverage in most parts of Cumberland and surrounding counties. There are no dues or special obligations required for the use of this repeater.

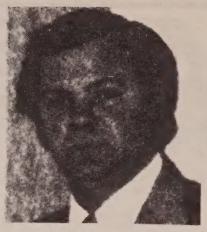
It is provided to serve all Radio Amateurs and render a public service to the great community in which we live. We sincerely hope that you will enjoy this "Red Carpet Repeater" for many years. Come join your friends and neighboring hams in good fellowship, fun and service. Handle Traffic, Rag Chew, Have A Barrel of Fun or just say "Howdy Neighbor". It is here for all to enjoy.

We are eternally grateful to N4AGB (America's Greatest Broadcaster), WA4PSG (Proud Southern Gentleman) and N4AIO (Amateur Intelligent Operator) for their patience, tireless effort and expertise in preparing this equipment for the enjoyment of the multitude. Also to W4EHF for offering this frequency.

73, Seasons Greetings and Happy Haming throughout the New Year (1980) and many more to come.

W4LPL	WA4YMM	WA4YMD	WD4AAC
Carl	Marie	Carl B.	Gary

TARLETON NEW CVRA PRES.



Lane Tarleton

W. Lane Tarleton, WA4ZQQ assumed the helm of the CVRA Jan. 1. The Fort Mill, S.C. amateur is quite active in Amateur radio and is owner of G.I.S.M.O. Communications in Rock Hill. He has actively participated in associate membership passing out applications at hamfests and at his store. This is Lane's first position with the organization in an elected capacity.

Lane, holder of an Advance Class license is 37 years old, married and the father of five boys.

Born in Monroe, N.C. he later attended grade school and high school at Unionville. After graduation Lane entered the U.S. Army where he served for six years with the 101st and 82nd Airborne Division. His last year with the Special Forces Group at Fort Bragg.

After discharge from the Army, he started an Interior Design firm in Rock Hill. His wife Elaine still operates the business. At present Lane is owner of G.I.S.M.O. Communications which sells and services Amateur and Commercial radio equipment.

Lane told the CVRA Journal that he has dedicated himself to try to improve facets of the CVRA, initiate programs for clubs explaining the CVRA, and improve communications with CVRA officers and members.

A CVRA PLUG FROM RED ROSE

The "Timed-Out Times" is the newsletter of the Red Rose Repeater Association out of Lancaster, Pennsylvania. In the January issue, editor Martin Bloomberg, WA3MHP wrote a short CVRA article on page 1. His comments were very favorable and nice about the CVRA and the Journal. In part it read: "CVRA is one of the largest repeater councils in the U.S. and they do a fine job of coordinating repeater clubs in the Carolinas-Virginia area. CVRA publishes one of the finest repeater association journals in the country."

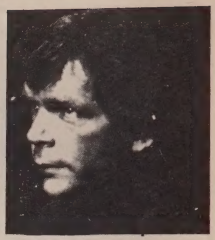
The editor then suggested anyone wanting to join the CVRA and receive the Journal to mail in their fee. He even gave the full CVRA mailing address.

Coming from an organization as respected as the Red Rose Repeater Association and from a newsletter as nice as the "Timed-Out Times", we at the Journal consider this quite a compliment. Many thanks to our friends up in Pennsylvania. (Editor)

BE A GOOD NEWS TIPPER

Watch for interesting happenings in your club or area that might be of interest to CVRA JOURNAL readers and share it with us. Just send the facts, we'll write it up for you.

MEET OUR NEW CVRA VP



Ted Goldthrope

Ted Goldthrope, WA4VCC of Fort Mill, S.C., has been installed as the new Vice-President of the CVRA. His term runs through December 31, 1982.

Ted was born in Charleston, W. Va. in 1941 and lived there for 22 years. His parents' home was located on a mountain just outside of Charleston; so when he became licensed at age 14, he immediately discovered the World over 50 Mhz. On any given night, Ted would QSO within a 10 state area on 5 meter ground wave, His call at that time was K8EYS. Ted graduated from high school in 1959 and traveled south to go to college. In 1963, he graduated from St. Andrews Presbyterian College in Laurinburg, N.C. Shortly after school, Ted married Itice Rivenbark from Wilmington and they moved to Charlotte.

For the next seven years, Ted was in the banking and investment business and his wife taught school. They had two children and Ted went "head on" with his hobby under the call of WA4VCC. In 1970, Ted started an "in house" advertising agency for Shoney's restaurants and three years later, become V-P of Marketing for the company. Currently, Shoney's South has 162 restaurants in a ten state area.

Ted's "haming" is his number one pastime and he specializes in contest operation and VHF. Occasionally, he chases DX in the early morning hours. He is an active member of the Mecklenburg Amateur Radio Society (W4BFB). Ted holds an advanced class ticket.

MISSOURI REPEATER JOINS CVRA

Our furthest away full member is now the 31-91 repeater located in Poplar Bluff, Missouri. W0AXL, Don M. Lidenton owner of the machine wrote the CVRA and expressed a desire to join the CVRA as a full member repeater. He also sent along an associate membership application for a friend, Jay Haworth also from Poplar Bluff.

Welcome Don and your 31-91 machine, this is a first for us, but we welcome you and hope you enjoy our Repeater Journal. (Editor) (Note the repeater will be listed in the Tennessee index of the Journal)

S.C. ASST. DIRECTOR MOVES

Jack Watson, S.C. CVRA Director reports he is losing the services of Lennart Bjerken of Sumter. Len has retired from the Air Force and accepted a position with Lockheed. His new job will take him to the mid-East flying for the company

The CVRA will miss Len, he did a good job.

WE'VE CUT THIS DOWN TO A SHORT TALE....

EVER NEED TO HAVE YOUR HAM GEAR SERVICED?

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OAK RIDGE TENN REPEATERS

-by Roaul Wright, K4EAJ

With Tennessee joining the CVRA, a brief description of the Oak Ridge 2 meter repeaters may be of interest. There are four active repeaters in the area which provide service to Oak Ridge and surrounding communities. W4SKH/R 146.28-88 and 146.37-97 are sponsored by the Oak Ridge Amateur Radio Club.

CROSS MOUNTAIN

The 146.28-88 repeater is located on Cross Mountain (3500 ft.) near Lake City, Tenn. The machine is made up of a 30 Watt Spectrum commercial repeater and RX-TX duplexers which feeds a 4 pole antenna 90 ft. up. The machine has a battery back-up system to furnish power in event that there is a loss of AC power. When on batteries, the output power automatically drops for extended battery life; a beeper sounds when on emergency power. The CW identification rotates with three different ID's: W4SKH/RPT, W4SKH/R ORARC, and W4SKH/R Oak Ridge TN.

SOLIWAY

The 146.37-97 repeater is located in the Soliway community and is used as a local coverage machine with autopatch facilities for Oak Ridge. It is a VHF Engineering repeater running 30 Watts and using North Lake duplexers.

WINDROCK MT.

The Oak Ridge K4EAJ/RPT's 147.72-12 and 147.75-15 (RTTY) repeaters are located on Windrock Mountain (3500 ft.) 10 miles north of Oak Ridge, Tenn. The two machines are all solid state and identical in design. They are operated and controlled with a dedicated computer which does the housekeeping of watching over the machines. The computer has 22 control channels presently active but easily expandable to 100. Some of the control functions are: selectable antennas, selectable power of 10 or 45 Watts, remote squelch adjust, remote timer disable, remote shutdown, selectable control links, and ability to install a spare repeater by remote control in event of failure. The machines automatically switch to 10 Watts when on emergency power and can operate for 5 days in normal use; an audio beeper lets users know it is on emergency power so they can conserve the batteries. The (2125 Hz plus 2295 Hz) tone access on the RTTY machine can be disabled by remote control such that it can be used as a normal carrier controlled FM repeater if necessary. Numerous security devices are built in the computer control system to prevent tampering. Downlink telemetry informs the control operators of all conditions of the machines on the mountain. The RTTY machine will be extended to accept ASCII when approved for operation by the FCC. The system was designed and constructed by Roaul, K4EAJ.

There are two active nets on the Oak Ridge repeaters.

TEN MEMBER HONOR ROLL

In an attempt to get information about the CVRA into all our new districts as well as better in our old districts, we have come up with a novel little contest.

Membership is the basic idea of the contest. We will offer anyone who reads the Journal a challenge. Get 10 new Associate Members to join our organization before the end of the year and we will list you on the CVRA JOURNAL HONOR ROLL. We will begin this Honor Roll next issue and add to it each issue during the year. Your name and call will appear on the honor roll telling everyone that you guided at least 10 new Associate Members into the CVRA.

The honor roll will not be numbered, but names will appear as we receive them, and you will hold your place on the roll for the remainder of the year. So who will be number 1 ?????

We hope to work up a little certificate to award to each member of the honor roll before the end of the year, something to place on the wall in your ham shack.

Directors, Officers and appointed officials of the CVRA are not eligible for this award (This is their job anyway). It is just available to other Associate Members who are readers of the Journal.

Take the application in this issue, duplicate it and give it to some friend who is not a member. When you get 10 new Associate Members confirmed (you do the confirming), send the Journal Editor a letter certifying you have qualified for the HONOR ROLL, list their names and calls. We will take you at your word and publish your name.

If you run out of applications, just get a potential member to mail his NAME, ADDRESS, CALLSIGN, PHONE, HOME REPEATER with $3.00 for each year he wishes to join ($6.00/2 years and $9.00/3 years) to: CVRA Associate Membership, P.O. Box 5655, Greensboro, N.C. 27403.

Ready!!!!! Let's go!!!!! See how many of you are good salespersons. Can your District beat out other districts????? Let's see if you can!!!!!

COMPUTER PROGRAM FOR COMPUTING INTERMOD FREQUENCIES

Roaul Wright, K4EAJ of Oak Ridge, Tennessee writes that he has written a computer program which will compute intermod frequencies. The program is written for use up to the 7th harmonic for any two frequencies.

Roaul said this can save days of work on a hand calculator. He said the program is on his computer at home, and no distribution has been set up on the program as of yet. He said this can be a gift to the CVRA from the new District of Tennessee.

The Journal will get information as to how you can get this program for our next issue. Roaul is not prepared to handle the volume of requests that would be forthcoming if it were available at this time. (Editor)

TEKNIKLE TOPIX

by: Watson Gabrial, WB4EXW

MATCHING 75 OHM HARDLINE INTO 52 OHM ANTENNA SYSTEMS

One important item that is sometimes neglected in VHF stations, especially those of the more serious amateurs, is the coax that connects the antenna to the transmitter/receiver or transceiver. Many just pick up a length of any RG-8 type coax and "hook it up".

Most new hams are not aware of some problems that exist with many brands of RG-8 that are available. Since MIL-C17D specifications were dropped for RG-8, its quality has significantly deteriorated. The most evident problem is the lack of "full" braid coverage, which causes additional loss and/or signal "feed thru" because of inadequate shielding at VHF frequencies. If you must use a coax of this type, I recommend your using type RG-213/U which meets MIL-C17D specifications.

Since only slightly more than 50% of your transmitter's output power will reach your antenna in a 100 foot run of RG-8 type coax and receiver sensitivity will be impaired just as much, I don't recommend using an RG-8 type coax except for short runs. It is much better to use one of the "hardline" cables. These cables do not have a braided shield at all. The outer shield of hardline cables has a solid auminum or copper tubular conductor, which is how they get the name "hardline". The most common types have diameters of 1/2, 3/4, or 7/8 inch and a characteristic impedance of 50 or 75 ohms. Loss characteristics of hardline are much better than that of the RG-8 type. For example, 1/2-inch hardline has a loss of about 1 dB per hundred feet. This translates to 79% of our transmitter's output power reaching the antenna. The larger sizes have even less loss.

Sometime you might luck out and find a good deal on some hardline of the 50-ohm type. Much of the time you will not as I found out when looking for some 7/8-inch, 50-ohm hardline to use with my new moonbounce array for 2-meters. Since I was too cheap to buy any, my alternative was to use some of the commonly available 3/4-inch, 75-ohm CATV transmission line and this is what I bought for less than the price of RG-213 braided coax!

Connectors are another problem but you will find that UG-21B male type N and UG-23B female type N connectors (phooey on Pl-259's) can be mated to a bulkhead connector that is commonly available for the CATV hardlines.

But, you say, my antenna and rig are matched for 50-ohms and not 75 ohms. There are various ways to remedy this situation, some of which involve constructing matching sections or stubs that made the transmission line look like 50-ohms to the antenna and transmitter. The simplest method that I have found is to cut the 75-ohm line to a multiple of a half-wave length at the frequency of operation. Remember that transmission line theory says that the impedance on the load end of a line is seen at every half wavelength back down the line toward the transmitter. If our antenna is a good 50-ohm load, we are home free.

One method to use in "tuning" our line is to run the coax with the connector on the antenna end, temporarily put the connector on the end in the shack, and measure the SWR. Then you can trim a small amount of the coax away and reinstall the connector and take another measurement. By repeating this procedure you will find the halfwave point.

I don't care to have to do this much work so I will describe the method that I use. We will use the 2-meter band for an example. You should only have to cut the hardline once unless you make a mistake.

A few materials will be needed: a transmitter that covers the 2-meter band (a synthesized FM rig is fine), a good SWR Bridge or reflectometer, a good 50-ohm load (a Cantenna is not good enough), some graph paper and a calculator if you are lazy.

The first thing you must do is to predetermine about how long the coax must be. Let's say that we need a 90 foot length. Most 75-ohm CATV hardline has a velocity of propagation of about 0.81. We will also say that we want to use this coax in the low end of the band so we will cut it for use at 144.1 MHz.

Now we need to calculate a length that is 90 feet plus a little for trimming that is a multiple of half wavelengths long.

$$\text{Wavelength} = \frac{11803\,(v)}{f\,(\text{Mhz})} \text{ inches}$$

$$= \frac{11803\,(0.81)}{144.1} = 66.3458 \text{ inches}$$

$$= 5.52882 \text{ feet}$$

Seventeen wavelengths of the coax will be 93.9899 feet long (93 feet 11 7/8 inches). We must now cut our hardline to this length as accurately as we can. One requirement for using this method is to know the original cut length of the coax accurately.

The next step is to put the connectors on the ends. One should be put on just snug enough to make good contact so that measurements can be made because it will have to be removed and re-installed later. The transmitter and SWR Bridge is hooked up to this end. Be sure to either hook the SWR Bridge directly to the end of the hardline or use a halfwavelength of coax between the bridge and the hardline with a coax adapter. Connect the 50-ohm load to the other end. All of the following

Continued On Page 36

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- Automatic or Manual Scanning
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- Battery operated (6V dc)

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- "Rubber Ducky" Antenna
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- Built-in Scan Delay
- Manual or Automatic Scanning
- Individual Channel Lock-outs
- "Rubber Ducky" Antenna
- Battery operated (6V dc)

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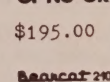

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- AC/DC operation

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More capabilities—more refinements. The 211 sets a new standard for synthesized scanners.

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- 16 channel monitoring
- Digital Electronic Clock
- Variable Scan Speed—5 or 15 channels per second
- Deluxe keyboard, Synthesized Programming
- Automatic Search—Selective Scan Delay—Automatic Lock-Out—Patented Track Tuning—Manual Scan Control—Hold for stopping on frequencies while searching—Single Antenna
- Decimal Display
- Auto Squelch factory-set for optimum reception
- AC/DC operation

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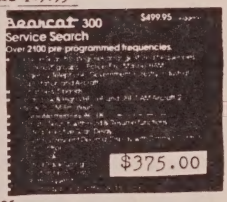

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R-804	8-Channel Scanner, 30-50, 146-174, 450-512 MHz, 120V AC, 12V DC, AC cord and antenna included.	$104.00
	LIST PRICE 129.00	
R-106	10-Channel Scanner, 30-50, 146-175, 450-470, 470-512 MHz, 120V AC, 12V DC, mtg. brkt., AC/DC cords and antenna included.	$117.00
	LIST PRICE 149.00	
E-106	10-Channel Scanner w-Priority Channel 1. Wood cabinet, 30-50, 146-174, 450-512 MHz, 120V AC, 12V DC, AC cord and antenna	$129.00
	LIST PRICE 279.00	
M-100	10-Channel Scanner, Synthesized Digital Entry. Vacuum fluorescent readout in search, manual or scan mode. Priority and delay features. 30-50, 144-174, 440-512 MHz, 12V DC. External AC power supply, mounting bracket, antenna, and 9V alkaline battery included.	$195.00
K-100	10-Channel Scanner, Synthesized Digital Entry. Display readout in search feature and scan mode. 30-50, 146-174, 440-512 MHz, 120V AC, 12V DC w/AC cord and antenna included.	$195.00
	LIST PRICE 279.00	
K-500	550-Channel Scanner, 16 Light Display Digital Entry. Display readout in search and scan mode. 40 RAM*, 510 ROM* Channels; weather alert feature plus Time; Hold; Delay and Clock with alarm. 30-50, 144-174, 440-512 MHz, 120V AC, 12V DC, w/AC cord and antenna included.	$280.00
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73, THE GISMO GANG

TENNESSEE NEWS

-By Bob May, K4SE

Featured in this issue of the "CVRA Journal" is, hopefully, the first in a series of articles detailing some of the historical and current facts about CVRA member repeaters throughout the state of Tennessee. Since Tennessee has recently voted to become a part of CVRA, we will try to feature a different repeater for each issue of the "Journal." But this will be possible ONLY if the articles are sent to the Tennessee News Editor (Bob May, K4SE, P.O. Box 30, Jonesboro, Tenn. 37659). So to all the Tennessee repeater representatives, if you want to see your repeater facts in print, come "blow your own horn." Which Middle or West Tennessee repeater will be the first? Get your data together and write your article TODAY!

Kingsport, Tennessee, W4TRC/R

This first article features the Kingsport Amateur Radio Club W4TRC/Repeater. It is appropriate that this machine be the first subject of this series, as it was the first Tennessee repeater in operation east of Knoxville, and is a brand new CVRA repeater member.

On February 20, 1972, the idea for a repeater in Kingsport was born in the minds of the first repeater committee: Charlie Benedict (WB4FVM), Fred Dellinger (WB4MPJ), J. D. Hattaway (WA4BXZ-now K4FQ), Hank Resch (K4VOS) who was to become the first repeater engineer, and John Sanders (WB4ANX). These men were members of the Kingsport and/or Bays Mountain Amateur Clubs, two clubs which always meet together and function as one. The committee's recommendations were reported to the club members, many of whom put forth their monetary donations which bought a new Standard repeater and a J-pole antenna in November, 1972, and later a Phelps-Dodge duplexer. Several repeater sites were available, but a location in the penthouse of Holston Valley Community Hospital was chosen because of easy accessability and availability of telephone and power connections.

The early planners wanted to make sure that the repeater's frequency was not a source of interference so the frequency of 146.22/82 was coordinated with Jim Skeen (WA4NEC-now K4IZ), the East Tennessee Frequency Co-ordinator at that time. The more popular frequencies were already in use within a 100 or so mile range (17/76 in Asheville, 34/94 in Knoxville and 28/88 in Oak Ridge).

The license was received in January, 1973, and W4TRC Repeater was put on the air temporarily for the S.E.T. exercise. Then on April 13, 1973, the repeater was put into continuous operation. Later on, autopatch was added. In April, 1974, due to F.C.C. rules changes, the repeater was licensed as WR4AGE.

Because of the need to provide greater coverage, on November 14, 1975, the repeater was moved to a site on Bays Mountain furnished by WKPT-FM. This location provides mobile coverage from as far away as Morristown, Tennessee, Abingdon and Big Stone Gap, Virginia, and to the border areas of North Carolina.

On May 11, 1976, the frequency was changed to 146.37/97 to avoid problems with another 22/82 repeater that had materialized in the Knoxville area. By the way, this frequency was co-ordinated with CVRA as well as with Tennessee. Most Tennessee repeater owners have realized the importance of frequency co-ordination with their neighbors for a long time!

On October 13, 1977, Gary Smith (L4VZZ) took over the job as engineer. Hank (K4VOS) had done a great job, but he had other responsibilities (a new XYL, etc.) which needed his attention.

In November of 1977, the radio club voted to purchase a Motorola Micor repeater and did so in April of 1978. The Standard machine had done well, but its front end had begun to give problems in the ever-increasing R.F. environment of Bays Mountain. Then on August 18, 1978, at 9:07 PM, the Micor was put on the air with excellent results.

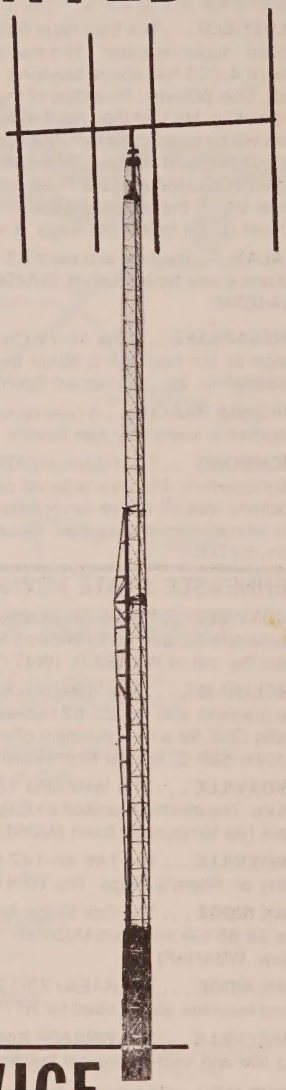
In October, 1979, the call was changed back to W4TRC(/R) due to another change in the F.C.C. rules. The next improvement for the repeater will be an emergency power supply which should be in operation during the spring of 1980. W4TRC/R continues to provide reliable service and the Kingsport and Bays Mountain Amateur Radio Club members invite you to use it whenever you are in its coverage area!

W4TRC/R DATA:
Location — Bays Mountain, Kingsport, Tennessee
Frequency — 146.37/97
Repeater — Motorola Micor
Duplexer — Phelps Dodge
Antenna — Phelps Dodge Station Master
Repeater access — Carrier, open to all users
Autopatch — Standard and reverse
Power Output — 20 Watts (duplexer output) — balanced to receiver sensitivity
HAAT — 900 ft., HASL — 2260 ft.
Building and land furnished by WKPT-FM
Present Repeater Committee:
George Devault (WA4IVG), Bob Lane (KI4V), Ken Maness (AA4AA), John Sanders (WB4ANX), Gary Smith, Engineer (K4VZZ)

REFLECTOR INFORMATION WANTED

Anyone having any information or experience with placing some type of reflector some distance from a Super Stationmaster antenna to effectively block out one direction is asked to please contact WD4MCH or WD4OMT of Sylva, N.C. They are working on a limited coverage repeater on 37-97 and want to do a little nulling in one direction. (editors Note: Anyone with this information could send it also to the Journal so we can publish in the May issue, this is a situation a lot of repeater owners would like to know about.) (Ken, WA4BVW)

ROHN & CONSOLIDATED TOWERS



Utility Poles Installed

Tower and Pole Accessories

Thrust Bearing

Rotor Plates

Guy Wires

Pole Steps

CDR Rotors

Crankup Telescoping Mast
(by consolidated)

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VIRGINIA DISTRICT NEWS ITEMS

Carter Cogle, K4ARO, Director

CVRA & T-MARC work together quite well reports Carter Cogle, Virginia State CVRA Director. He said questions of coordination in Northern Virginia are always welcomed by Gary Hendrickson, W3DTN of the T-MARC Frequency Coordinating Committee.

BLUEFIELD . . . The East River Radio Club of Bluefield reports the coordination of a sub band frequency for their new proposed "super repeater". The machine will ultimately be placed atop a 1,207 foot tower, which will be installed at an elevation of 4,326 feet above sea level. The repeater antenna should tip out at 5,000 feet above sea level and HAAT of 2,735 feet. Don Williams, President of the club said FCC approval has been granted for the commercial tower and FAA approval is pending. He said they don't expect to get the repeater going before late 1980 or early 1981. Because of the elevation, time will be needed for construction. The tower and repeater will be located on East River Mountain, 9 miles from Bluefield and Tazewell in Virginia. The East River Club has joined the CVRA again this year. The club also operates the 16-76 repeater located on East River Mountain just inside the Virginia border. Note: The repeater was formally listed as East River Mt., in the repeater index. It is now listed as Bluefield, Va. The club reports improvements planned for 16-76 which should give it better coverage. It was moved several hundred feet east of its old location, just across the Virginia line.

GALAX . . . The new sub band 53-13 repeater in Galax has a new Specialty Communications receiver board being installed and a new timer. Buford, WA4DFH said this should help balance the machine and provide additional coverage. (Buford, WA4DFH)

CHESAPEAKE . . . The 19-79 Chesapeake repeater is back in service after moving to the Oak Grove Water Tank. The range of the machine is about the same in the new location. The machine sponsored by the Hampton Roads Radio Association, Inc. has named Sperry Davis, N4SD as trustee. (Wally, WA4KXV)

VIRGINIA BEACH . . . A new repeater to operate on 645-045 is now in the testing stage at a temporary location. The machine is owned by Karl Emrick, WA4SBC. (Wally, WA4KXV)

RICHMOND . . . The Richmond ARC 34-94 has completed revamping of its facilities in the office of Emergency Services Headquarters. The new area will provide much easier use in emergencies. The Telephone Pioneers, WB4QEY/R 04-64 machine was off the air several days during Christmas week as the group installed an updated GE Prog Line and a new pre-amp for better coverage. Antenna height has also been increased. A new antenna is planned when weather permits. (Jim, K4OJE)

TENNESSEE STATE NEWS

KNOXVILLE . . . The Radio Amateur Club of Knoxville (RACK) has placed in operation their repeater on 90-30. The new machine is located on Chilhowee Mt. at 2,843 feet, about 30 miles SE of Knoxville. The repeater, a member of CVRA uses the call of W4BBB/R. (W4TYU, Jean)

ENGLISH MT. . . . The WB40AH 63-03 repeater on English Mt. has changed frequencies to 825-225. Plans are to link the machine with the 22-82 repeater at Oak Ridge in the near future. The 63-03 frequency will be used by the Lakeway Radio Club for a new machine offering local coverage of Morristown. (Sam, WB4HAP) (Note: English Mt. listed as Morristown 825-225, also Morristown for the proposed 63-03 in the repeater index.)

KNOXVILLE . . . The WR4APU 13-73 repeater in Knoxville has plans for some new Motorola equipment in the near future. The machine located on English Mt. still has plans in the future to link with Robbinsville, N.C. 445-045 although the work has temporarily been placed on the back burner until improvements are made on the 13-73. (Sam, WB4HAP)

KNOXVILLE . . . The 146.40-147.54 Knoxville repeater group machine has been relocated recently to newly bought property on Sharp's Ridge. The WR4AHF machine has full autopatch capabilities.

OAK RIDGE . . . The Oak Ridge Amateur RC recently installed a new Spectrum Communications and Tx-Rx duplexer on the 28-88 site on Cross Mountain. The group is making use of the old machine on 37-97 for local autopatch in Oak Ridge. (Sam, WB4HAP)

OAK RIDGE . . . The K4EAJ 72-12 repeater is getting a new sister machine at the Windrock Mountain location. The second machine will be used for RTTY and operate on 75-15. It is located at the same site as the existing 72-12 repeater.

KNOXVILLE . . . The WR4ADF Knoxville 34-94 machine on Chilhowee Mt. has relocated about ½-mile Southwest of the old site and sold its original building to the RACK club for their new 90-30 repeater.

COVE MT. . . . The 25-85 Cove Mt. repeater is now operational at the 4150 MSL height. The machine is operated by Keith Tarwater, WA4KJH with assistance of Charles Fine, WB4TVW. The machine is an open repeater with private autopatch, requiring sub-audible tone. The equipment is a GE Master, WACOM Duplexer and DB-224 antenna. (Sam, WB4HAP)

KNOXVILLE . . . Keith Henson has his 86-46 220 mhz repeater in service on Chilhowee Mt. The machine operating on split antennas is a converted Motorola tube equipment. This is the first 220 machine in the Knoxville area. (Sam,

THE RALEIGH AMATEUR RADIO SOCIETY'S

AN ARRL APPROVED

8TH ANNUAL HAMFEST

$3.00 GENERAL ADMISSION

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APRIL 20 1980

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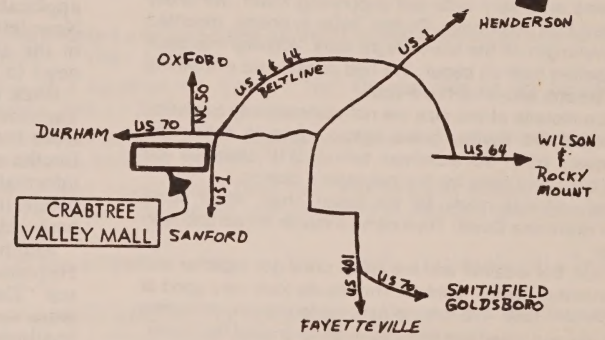
RALEIGH, N.C.



★ PRIZES!!! PRIZES!!! PRIZES!!!

1st Prize – Choice of Kenwood TS120S HF Transceiver and PS30, 12 volt power supply, or Kenwood TS700SP Multi-mode 2 meter Transceiver. Vickers Electronics of Durham aided RARS in the purchase of this prize.

2nd Prize – Kilowatt Three-element Tri-band beam. This prize presented by RARS.

3rd Prize – Heavy duty CDR Rotator presented with the assistance of CDE, Fuquay, North Carolina.

MANY OTHER PRIZES WILL BE DRAWN ALL DAY SUNDAY!!!!

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★ TALK-IN SATURDAY AND SUNDAY
WR4ACF (146.04/146.64)
WR4AOE (146.28/146.88)

★ **SPECIAL INTEREST MEETINGS: Q.W.C.A., M.A.R.S., & OTHERS.**

FOR ADDITIONAL INFORMATION, DETAILS, OR RESERVATIONS WRITE:
RARS Hamfest, P. O. Box 17124, Raleigh, N. C. 27619

WHITEHALL REPEATER SOLVES ITS TOWER SHADOW PROBLEMS

-by Tommy Martin, WB4PVL

(Editor's Note: Tommy called us about a year ago looking for information on solving the problems of shadows in signal areas when the antenna is located on a wide self-supporting radio tower. After a year of frustration, weather, etc. they succeeded. Here is his report.)

The long proposed antenna change for our Coastal Amateur Radio Association's White Hall Repeater on 31-91 has finally become a reality.

After about a year and a half of plotting patterns and conversations with anyone who would discuss tower shadow problems on a very wide self-supporting tower, we finally decided that two Phelps-Dodge 340s in phase, mounted ¾ wavelength off the tower might work. Anyway this decision looked best on paper. We had considered everything else, beams and what-have-you.

Since mounts of this size are not commercially available, we began the waiting game again, trying to obtain the necessary 6061-T6 aluminum tubing, 310 stainless rod for U bolts and plate for the necessary clamps.

Finally all was ready for the tower crew, when along came Hurricane David. Then came a month of rain and high winds.

At last, the weather and the tower crew got together and the antennas were mounted. The results look very good at the present time. We see no noticeable shadow problems as of yet and coverage has improved all around the tower. We note particularly the great improvement in coverage in the area behind the tower. Areas that were dead before are now producing good signals.

So, I think we finally made it. We hope we have solved the problem of how to mount a repeater antenna on a wide tower and not lose in any direction .

TRI—STATE TENN CLUB CAN BOAST MANY ACCOMPLISHMENTS

President Richard Furnam W4DSK, of the Chattanooga Tri-State FM Association, Inc. (Tenn) reviewed the club's past accomplishments during 1979 at their December meeting.

Among them were -Club has a workable revised constitution and by-laws, -contributed to, supported, and worked for a very successful Hamfest Chattanooga, -we own a good home brew deviation meter, -a tourist information area mapping project has been completed, and a complete repeater and duplexer awaiting a site.

Other achievements include, -all new members receive a membership packet from the secretary, -a club newsletter going to all members monthly with printing services donated by a member. Public service projects included two Sequoyah Civil Defense Drills, the Appalachian Arthritis Walk-A-Jog-A-Thon, the MS Society Bike-A-Thon.

1980 WILL BE A FINE YEAR

Continued From Page 1

have been to coordinate and get information to repeater owners.

We had hardly taken a second deep breath, when we get a letter from David Nulty, N4ATI from Fort Benning, Ga. David and I have been corresponding since I became editor of the Journal. He has been the faithful correspondent to keep me updated Georgia and Alabama repeater indexes over the past two years. Dave in his letter reported that the Georgia Repeater council at their meeting discussed CVRA and decided they wanted to move in our direction. They didn't have a quorum present to take a vote, but surveys are being sent around with applications and information in the Council Newsletter "Key Up". If things move smoothly and in the affirmative, we should have more exciting news to report about Georgia in our May issue.

Back here at "home", our new president, Lane Tarleton, wants active participation in membership from Directors and Vice Directors in each District. Booths at hamfests throughout all the districts and information packets, speakers and ultimately CVRA programs are planned for Clubs. This will swell our associate membership ranks this year.

Another good indication for 1980 is the fantastic response of renewals and new full memberships on our "Early Bird" Honor Roll, memberships which were sent in prior to January. An all-time record has been set with 88 memberships representing 115 repeaters. An interesting side-note was the application for membership of a repeater in Popular Bluff, Missouri.

We have made other changes in our repeater index in this issue, which has never been done before. We usually don't update full memberships until May. (Those who do not renew did not get the "N" for non-membership until May Issue) This year, we are marking repeaters that have not renewed as of January 15, 1980 with a "D" which represents a "Delinquent Membership Renewal". With this new coding, we are hoping that our friends who usually forget and aren't reminded until May, will get an early reminder in this issue.

Interest and enthusiasm is highest ever for our organization. We have club papers and news letters across the United States talking and writing about us. we made the decision a few years back that the CVRA MUST grow with Amateur Radio. We could not sit back and allow only a selected few to join our ranks. We must push onward and become a majority in order to be effective.

Our goal is to follow what the early founders of CVRA wanted . . . quality. Today we want quality with our quantity, and ever expanding communications to help our fellow amateur continue to enjoy the best VHF/UHF region in the United States as he has in the past.

-Wayne C. Williams, Editor

HAMFEST AND CONVENTION SURVEY

The Journal staff wants to know what you think of the hamfests in our area. Please answer the questions below and mail your answers to the Journal Editor, listed on Page 1. We will tabulate the answers and provide copies of the results to all hamfest committees who wish to have them. We will also publish the results in the next Journal.

1. How many Hamfests do you attend each year: ( ) 1-2 ( ) 3-5 _____How Many?

2. When you visit a Hamfest, do you mostly: ( ) Buy ( ) Sell ( ) Trade ( ) New ( ) Used?

3. Would you like to see more ( ) New Equip. Dealers ( ) Used Equip. Are you satisfied generally with what you see at the hamfests you attend? ( ) Yes ( ) No

4. Would you like to see more hamfests in the area? ( ) Yes ( ) No Do you prefer large convention-type hamfests ( ) or small flea market outdoor hamfests ( )? If a new hamfest starts in your area this year, will you go to see what it is like? ( ) Yes ( ) No.

5. Do you like for a hamfest to give away prizes hourly ( ) or give them all away at one time in the afternoon ( ) Do prizes convince you to attend a hamfest ( ) Yes ( ) No?

6. Do special events and seminars help you at a hamfest ( ) Yes ( ) No? Do you like to see special demonstrations, club projects, Radio Clinics ( ) Yes ( ) No?

7. Now that the FCC will not be giving exams at hamfests, will this change your mind about attending any of them ( ) Yes ( ) No. Have you taken exams at a hamfest ( ) Yes ( ) No.

8. Do you like to see special programs for the ladies ( ) Yes ( ) No? Does your wife or girlfriend go with you to hamfests ( ) Yes ( ) No _____How often? How many miles will you drive to attend a hamfest, say your favorite _____? Any Other you attend _____

9. Do you like 2-day hamfest ( ) Yes ( ) No. Do You attend ( ) 1st Day ( ) 2nd ( ) Both. Do you stay at a local motel ( ) Camp ( ) Other _____.

10. Do you try to deal with people you know personally when buying equipment ( ) Do you seek out the very best price ( ) Do you try to deal with local dealers ( ) or out-of-our area dealers regardless of size ( ) Local ( ) Out of area. Do you think dealers are fair with you ( ) Yes ( ) No. Do You feel you made the right decision on your latest purchase ( ) Yes ( ) No. Was your purchase a result of a dealer's "salesmanship" or you went to buy? ( ) Salesmanship ( ) Went to buy

11. Your Personal Data: ( )-Male ( )-Female ( )-Age ( )-Years a ham. Residence (State) _____ARRL Member ( )-Yes ( )-No. Amateur Interests: ( )-HF Bands ( )-6M ( )-2M ( )-220 ( )-450 ( )-Handheld ( )-Mobile ( )-Base ( )-RTTY ( )-EME ( )-TV ( )-Satellite Active in club(s): Yes-( ) No-( ). Active in Public Svc., CD, etc. ( )-Yes ( )-No. Traffic ( )-Yes ( )-No.

12. Please write any additional remarks you wish to make about hamfests in general:

Please complete this form, tear out, and mail to CVRA Journal Editor before Mar. 15. Thanks!

A TUNABLE FIELD STRENGTH METER WITH AUDIO OUTPUT

—BY Don La Monica, K9VGJ

Whether or not you are interested in fox hunting you may find this field strength meter a useful tool. If you're a fox hunter you'll appreciate having audio as well as a signal strength indication. If fox hunting isn't your thing, you may find the meter useful for making antenna or amplifier adjustments or for monitoring your own audio.

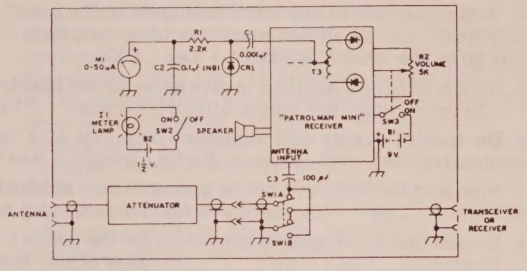
Basically, the field strength meter is nothing more than a Radio Shack Patrolman Mini receiver with a relative strength meter added to the output of the last I.F. The schematic depicts my fox box as it is actually wired (the volume control, power switch, speaker and battery were mounted remotely from the receiver board).

The only parts required for the addition of the metering circuit are M1, C1, C2, R1 and CR1. Almost any diode will work for CR1 but a germinium diode is preferred; a 1N34 would be a good alternate.

T# is a coil in the receiver and can be located by referring to the manufacturers diagram. C3 is added to block the D.C. voltage present at the receiver antenna terminal . . . remember some antenna types represent a D.C. short! SW1 is used to switch the output of the attenuator between the field strength meter and the external transceiver or receiver. (a SPDT switch could be used and the elaborate grounding scheme I used dispensed with). The meter lamp, I1, is used for night time viewing.

By the way, the manufacturer indicates a frequency coverage of 147-174 Mhz, but the receiver does in fact tune the entire two meter band and below. And, for those of you who are not familiar with the receiver, it is tunable . . . it uses no crystals. Also, if you grow tired of listening to the fox all you have to do is flip a switch and tune in your favorite AM radio station!

Incidentally, don't expect to do any weak signal work with this receiver. In fact, you probably won't even hear the "big" repeaters unless you are very close to them or use your base station antenna. It is the receiver's insensitivity that makes it especially useful for this application. *(From "Background Noise" of the Western Area FM Assoc., Illinois.)*



NOTE
ALL PARTS INCLUDING THE PATROLMAN MINI RECEIVER ARE MOUNTED IN A SHIELDED ENCLOSURE.

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FEBRUARY, 1980

N.C., S.C., VA., TENN., W. VA.

(By City Index On Following Pages)

TWO METERS

4.51 /5.11	HIGH POINT	NC
	KNOXVILLE	TN
4.53 /5.13	HODGES	SC
	GALAX	VA
4.55 /5.15	MORGANTON	NC
4.57 /5.17	BUTNER	NC
4.59 /5.19	WINSTON-SALEM	NC
4.61 /5.21	GASTON	SC
4.65 /5.25	MT PISGAH	NC
4.66 /5.26	GREENSBORO	NC
4.69 /5.29	TRINITY	NC
4.70 /5.30	BRYSON CITY	NC
4.73 /5.33	MT AIRY	NC
4.75 /5.35	CHARLOTTE	NC
	RALEIGH	NC
	BLAND	VA
	FRONT ROYAL	VA
4.77 /5.37	N. WILKESBORO	NC
4.79 /5.39	SAURATOWN MT	NC
4.81 /5.41	LEXINGTON	NC
4.83 /5.43	ALEXANDRIA	VA
	GALAX	VA
	MORGANTOWN	WV
4.85 /5.45	NEWPORT	NC
	OAK RIDGE	TN
	WELCH	WV
4.87 /5.47	LILLINGTON	NC
4.89 /5.49	HENDERSONVILLE	TN
	MEMPHIS	TN
	BLUEFIELD	VA
6.01 /6.61	GREENSBORO	NC
	NEW BERN	NC
	GREENVILLE	SC
	MYRTLE BEACH	SC
	CHATTANOGA	TN
	KNOXVILLE	TN
	NASHVILLE	TN
	BRUMLEY MT	VA
	LYNCHBURG	VA
	SPENCER	WV
6.025/6.625	LAURINBURG	NC
	HARRISONBURG	VA
	NEW MARKET	VA
6.04 /6.64	HENDERSONVILLE	NC
	RALEIGH	NC
	WINSTON-SALEM	NC
	SUMTER	SC
	MADISON	TN
	MEMPHIS	TN
	RICHMOND	VA
	ELKINS	WV
	HUNTINGTON	WV
6.055/6.655	CONCORD/KANNAP.	NC
	ALEXANDRIA	VA
6.07 /6.67	BURLINGTON	NC
	FOREST CITY	NC
	BRISTOL	TN
	COOKEVILLE	TN
	LAFOLLETTE	TN
	NASHVILLE	TN
	BARREN SPRINGS	VA
	LEXINGTON	VA
	WILLIAMSBURG	VA
	RAVENSWOOD	WV
6.085/6.685	GRIFTON	NC
	STATESVILLE	NC
	ALEXANDRIA	VA
	MORGANTOWN	WV
6.10 /6.70	DUNN	NC
	CHARLESTON	SC
	GREENVILLE	SC
	LANCASTER	SC
	GREENEVILLE	TN
	MANCHESTER	TN
	MEMPHIS	TN
	UNION CITY	TN
	DAN/WHT.OAK MT	VA
	NORFOLK	VA
6.115/6.715	SPRING LAKE	NC
	HERNDON	VA
	STERLING	VA
	PARSONS	WV
6.13 /6.73	SALISBURY	NC
	WILMINGTON	NC
	N. AUGUSTA	SC
	KNOXVILLE	TN
	LEBANON	TN
	MEMPHIS	TN
	HAMPTON	VA
	ALDERSON	WV
6.145/6.745	DILLON	SC
6.16 /6.76	ASHVL/MT PISGAH	NC
	GREENSBORO	NC
	GRIFTON	NC
	CHARLESTON	SC
	COLUMBIA	SC
	KINGSPORT	TN
	NASHVILLE	TN
	BLUEFIELD	VA
	CHARLOTTESVILLE	VA
	FOREST	VA
	HUNTINGTON	WV
	WHEELING	WV
6.175/6.775	ELIZABETHTOWN	NC
6.19 /6.79	LEVEL CROSS	NC
	CHARLESTON	SC
	CHATTANOGA	TN
	JOHNSON CTY	TN
	MEMPHIS	TN
	NASHVILLE	TN
	CHESAPEAKE	VA
	FAIRFAX	VA
	OAK HILL	WV
6.205/6.805	GASTONIA	NC
6.22 /6.82	DURHAM	NC
	ROARING GAP	NC
	WILMINGTON	NC
	GREENVILLE	SC
	LAKE CITY	TN
	MEMPHIS	TN
	WINCHESTER	TN
	COVINGTON	VA
	WINCHESTER	VA
	CHARLESTON	WV
	CLARKSBURG	WV
6.235/6.835	WADESBORO	NC
6.25 /6.85	GOLDSBORO	NC
	HICKORY/BRT. MT	NC
	REIDSVILLE	NC
	FLORENCE	SC
	LAURENS	SC
	SUMMERVILLE	SC
	COVE MTN	TN
	MEMPHIS	TN
	NASHVILLE	TN
	PORTSMOUTH	VA
	BECKLEY	WV
	BUCKHANNON	WV
6.265/6.865	HIGH POINT	NC
6.28 /6.88	RALEIGH	NC
	SHELBY	NC
	COLUMBIA	SC
	SAVANNAH (GA)	SC
	MEMPHIS	TN
	NASHVILLE	TN
	OAK RIDGE	TN
	BRISTOL	VA
	RICHMOND	VA
	ROANOKE/SALEM	VA
	CHARLESTON	WV
6.295/6.895	WILLIAMSTON	NC
6.31 /6.91	AHOSKIE	NC
	ASHEVILLE	NC
	FAYETTEVILLE	NC
	LEXINGTON	NC
	WHITE HALL	SC
	POPLAR BLF(MO)	TN
	SAVANNAH	TN
	SHORT MT.	TN
	BLACKSBURG	VA
	FARMVILLE	VA
	TYSONS CORNER	VA
	COTTAGEVILLE	WV
	FAIRMONT	WV
	MCMECHEN	WV
6.325/6.925	CHARLOTTESVILLE	VA
	DANVILLE(DCC)	VA
6.34 /6.94	ASHEVILLE	NC
	BURGAW	NC
	CHARLOTTE	NC
	DURHAM	NC
	MANTEO	NC
	CHARLESTON	SC
	COLUMBIA	SC
	GREER	SC
	KNOXVILLE	TN
	MEMPHIS	TN
	MERRYVILLE	TN
	NASHVILLE	TN
	HAMPTON	VA
	RICHMOND	VA
	ROANOKE	VA
	BECKLEY	WV
	NEW MARTINSVLLE	WV
	RICHWOOD	WV
	WEIRTON	WV
6.355/6.955	ROCKINGHAM	NC
6.37 /6.97	KINGS MTN	NC
	MT AIRY	NC
	SMITHFIELD	NC
	ANDERSON	SC
	FLORENCE	SC
	SAVANNAH (GA)	SC
	ALTAMONT	TN
	KINGSPORT	TN
	MEDINA	TN
	OAK RIDGE	TN
	MANASSAS	VA
	STAUNTON	VA
	VIRGINIA BEACH	VA
	LOGAN	WV
	PARKERSBURG	WV
6.385/6.985	ALBEMARLE	NC
	ROANOKE	VA
6.40 /7.00	HIGH POINT	NC
	JACKSONVILLE	NC
	MARION	SC
	PICKENS	SC
	KNOXVILLE	TN
	MEMPHIS	TN
	SUFFOLK	VA
	ST ALBANS	WV
6.415/7.015	BLUEFIELD	VA
6.43 /7.03	ERWIN	NC
	ROCK HILL	SC
	BLACKSBURG	VA
6.445/7.045	ROBBINSVILLE	NC
6.46 /7.06	CHARLOTTE	NC
	ELIZABETH CITY	NC
	MEMPHIS	TN
	SOUTH BOSTON	VA
	PRINCETON	WV
6.475/7.075	BURLINGTON	NC
6.655/6.055	UNION CITY	TN
6.685/6.085	BROWNSVILLE	TN
	WAVERLY	TN
6.715/6.115	PULASKI	TN
6.745/6.145	NEWBERN	TN
7.105/7.705	BRIDGEPORT	WV
7.135/7.735	ALAMO	TN
7.255/6.835	LEXINGTON	SC
7.30 /7.90	MONROE	NC
7.525/7.525	SAURATOWN MT	NC
7.60 /7.00	BRISTOL	TN
	CHATTANOGA	TN
	CLARKSVILLE	TN
	TERRA ALTA	WV
7.615/7.015	SUMTER	SC
	NASHVILLE	TN
	FREDRICKSBURG	VA
7.63 /7.03	GREENSBORO	NC
	ROANOKE RAPIDS	NC
	FAYETTEVILLE	TN
	HENDERSONVILLE	TN
	MEMPHIS	TN
	MORRISTOWN	TN
	SPRINGFIELD	TN
	WAYNESBORO	VA
	MULLENS	WV
7.645/7.045	NORFOLK	VA
	STAUNTON	VA
7.66 /7.06	MACO	NC
	SUMTER/SHAW	SC
	GREENEVILLE	TN
	SHELBYVILLE	TN
7.675/7.075	GREENVILLE	SC
	KNOXVILLE	TN
	CRIMORA	VA
7.69 /7.09	GREENVILLE	NC
	ORANGEBURG	SC
	SPARTANBURG	SC
	MEMPHIS	TN
	SPARTA	TN
	BRIARPATCH MT	VA
7.705/7.105	MONROE	NC
	JOHNS MT/EVNGTN	VA
7.72 /7.12	GASTONIA	NC
	GREENSBORO	NC
	ROCKY MOUNT	NC
	N. AUGUSTA	SC
	COLUMBIA	TN
	MEMPHIS	TN
	OAK RIDGE	TN
	CULPEPPER	VA
7.735/7.135	CHERAW	SC
7.75 /7.15	MORGANTON	NC
	RALEIGH	NC
	MEMPHIS	TN
	NASHVILLE	TN
	OAK RIDGE	TN
	TAZEWELL	VA
7.765/7.165	GREENWOOD	SC
	WARRENTON	VA
7.78 /7.18	MT AIRY	NC
	SANFORD	NC
	CAROWINDS	SC
	DORCHESTER	SC
	CLEVELAND	TN
	MEMPHIS	TN
	NASHVILLE	TN
	DUBLIN	VA
	PETERSBURG	VA
7.795/7.195	LAKE TOXAWAY	NC
7.81 /7.21	GREENSBORO	NC
	LITTLE MT	SC
	COOKEVILLE	TN
	JACKSON	TN
	MCLEAN	VA
7.825/7.225	HILLSBOROUGH	NC
	MORRISTOWN	TN
7.84 /7.24	EDEN	NC
	FRANKLIN	NC
	PINE BLUFF	NC
	SHELBY	NC
	COLUMBIA	SC
	GALLITIN	TN
	LYNCHBURG	VA
	PETERSBURG	VA
	WOODBRIDGE	VA
7.855/7.255	ASHEBORO	NC
	SHENANDOAH	VA
	MARTINSBURG	WV
7.87 /7.27	BENSON	NC
	GASTONIA	NC
	WAYNESVILLE	NC
	CHARLESTON	SC
	LONG MT	SC
	JOHNSON CTY	TN
	MEMPHIS	TN
	NASHVILLE	TN
	GUM SPRING	VA
	SCOTT DEPOT	WV
7.885/7.285	LYMAN	SC
	MARTINSVILLE	VA
7.90 /7.30	JACKSONVILLE	NC
	SYLVA	NC
	KNOXVILLE	TN
	MEMPHIS	TN
	NASHVILLE	TN
	BERRYVILLE	VA
	CLIFTON FORGE	VA
	FRANKLIN	VA
	GRUNDY	VA
	HUNTINGTON	WV
	PENNSBORO	WV
7.915/7.315	UNION CROSS	NC
	ALEXANDRIA	VA
7.93 /7.33	FAYETTEVILLE	NC
	LENOIR	NC
	COLUMBIA	SC
	CROSSVILLE	TN
	COLE MT	VA
	KLMNRK/SALUDA	VA
7.945/7.345	SHELBY	NC
	NASHVILLE	TN
7.95 /7.35	DANVILLE	VA
7.96 /7.36	BOONE	NC
	LUMBERTON	NC
	EDMUND	SC
	MEMPHIS	TN
	NASHVILLE	TN
	PARIS	TN
	PARKERSBURG	WV
7.975/7.375	BURNSVILLE	NC
	NASHVILLE	TN
	LYNCHBURG	VA
7.99 /7.39	CHARLOTTE	NC
	EDENTON	NC
	GREENVILLE	SC
	DAYTON	TN
	JONESBORO	TN
	MEMPHIS	TN
	NASHVILLE	TN
	PETERSBURG	VA
8.03 /7.33	TOCCOA(GA)	SC

NORTH CAROLINA REPEATERS

TWO METERS

AHOSKIE	WR4AFB	146.31	146.91	N	PA
ALBEMARLE	WR4BBX	146.385	146.985		
ASHEBORO	WR4AOE	147.855	147.255		PA
ASHEVILLE	WB4DRN	146.31	146.91	D	A
ASHEVILLE	WA4QCO	146.34	146.94	N	
ASHVL/MT PISGAH	WA4BVW	146.16	146.76		
BENSON	WR4ARL	147.87	147.27	D	PA
BOONE	WR4ATQ	147.96	147.36		PA
BRYSON CITY	K4BBF	144.70	145.30	N	P
BURGAW	K4LZY	146.34	146.94		
BURLINGTON	WR4AYO	146.07	146.67	N	A
BURLINGTON	W4VGZ	146.475	147.075		EA
BURNSVILLE	WA4LLR	147.975	147.375	N	
BUTNER	WA4IZG	144.57	145.17	N	P
CHARLOTTE	WB4HTR	144.75	145.35	N	P
CHARLOTTE	WR4AEU	146.34	146.94	D	A
CHARLOTTE	WR4ALO	146.46	147.06	N	A
CHARLOTTE	WR4AWQ	147.99	147.39		PA
CONCORD/KANNAP.	K4CEB	146.055	146.655	D	A
DUNN	WB4FXM	146.10	146.70		
DURHAM	WA4WTX	146.22	146.82		
DURHAM	WR4BEK	146.34	146.94	D	A
EDEN	WR4AZX	147.84	147.24	N	
EDENTON	WA4JOK	147.99	147.39	N	C
ELIZABETH CITY	WA4VTX	146.46	147.06	D	A
ELIZABETHTOWN	W4DCD	146.175	146.775	N	P
ERWIN	WR4ALY	146.43	147.03	N	
FAYETTEVILLE	WR4ANN	146.31	146.91		A
FAYETTEVILLE	W4LPL	147.93	147.33		
FOREST CITY	WR4AHA	146.07	146.67	N	A
FRANKLIN	WR4ALD	147.84	147.24	N	
GASTONIA	K4ZFD	146.205	146.805	N	L
GASTONIA	WR4ATP	147.72	147.12	N	A
GASTONIA	WD4KGM	147.87	147.27	N	
GOLDSBORO	K4CYP	146.25	146.85		A
GREENSBORO	N4AZM	144.66	145.26	N	
GREENSBORO	K4SNI	146.01	146.61	D	A
GREENSBORO	WR4AOD	146.16	146.76	D	
GREENSBORO	WD4IPZ	147.63	147.03		PA
GREENSBORO	K4CJZ	147.72	147.12	D	EA
GREENSBORO	WR4ANL	147.81	147.21	N	
GREENVILLE	W4GDF	147.69	147.09	D	A
GRIFTON	W4NBR	146.085	146.685		C
GRIFTON	WR4ABP	146.16	146.76		
HENDERSONVILLE	WR4ALC	146.04	146.64	N	
HICKORY/BRT. MT	WR4ACM	146.25	146.85	D	
HIGH POINT	N4XO	144.51	145.11	N	P
HIGH POINT	WA4ZXA	146.265	146.865		PA
HIGH POINT	K4AZA	146.40	147.00		A
HILLSBOROUGH	WA4WTX	147.825	147.225		A
JACKSONVILLE	WD4FVO	146.40	147.00	D	AO
JACKSONVILLE	WR4ATW	147.90	147.30		A
KINGS MTN	WR4AYN	146.37	146.97		
LAKE TOXAWAY	WR4AGH	147.795	147.195		
LAURINBURG	WR4AOX	146.025	146.625	D	
LENOIR	WR4ARG	147.93	147.33		
LEVEL CROSS	K4VUW	146.19	146.79		
LEXINGTON	WD4NTE	144.81	145.41	N	P
LEXINGTON	WR4BDA	146.31	146.91		PA
LILLINGTON	WA4FKI	144.87	145.47	N	
LUMBERTON	WR4BDQ	147.96	147.36	N	A
MACO	K4OVA	147.66	147.06		
MANTEO	W4PCN	146.34	146.94		PA
MONROE	K4BGU	147.30	147.90	N	
MONROE	WR4BBN	147.705	147.105	D	A
MORGANTON	WB4UDS	144.55	145.15	N	P
MORGANTON	K4AI	147.75	147.15		
MT AIRY	AA4RW	144.73	145.33	D	
MT AIRY	WB4UJH	146.37	146.97	D	
MT AIRY	WA4CQK	147.78	147.18	N	
MT PISGAH	WA4COS	144.65	145.25	N	P
N. WILKESBORO	K4ITL	144.77	145.37		L
NEW BERN	WD4JMS	146.01	146.61	D	A
NEWPORT	K4GRW	144.85	145.45		P
PINE BLUFF	WR4BAR	147.84	147.24	N	
RALEIGH	W4PNN	144.75	145.35	N	PR
RALEIGH	WR4ACF	146.04	146.64		
RALEIGH	WR4AOE	146.28	146.88		
RALEIGH	WR4AOE	147.75	147.15		A
REIDSVILLE	K4YFT	146.25	146.85	D	
ROANOKE RAPIDS	K4PUV	147.63	147.03	D	
ROARING GAP	WB4PZA	146.22	146.82	D	
ROBBINSVILLE	WR4BAN	146.445	147.045	D	
ROCKINGHAM	WA4ULA	146.355	146.955		
ROCKY MOUNT	WD4HIG	147.72	147.12		A
SALISBURY	W4EXU	146.13	146.73		
SANFORD	WB4EJJ	147.78	147.18	N	A
SAURATOWN MT	WB4SNA	144.79	145.39	N	CL
SAURATOWN MT	WB4SNA	147.525	52.525	N	L
SHELBY	WR4ABF	146.28	146.88	D	
SHELBY	WR4AWU	147.84	147.24	N	
SHELBY	WR4ABF	147.945	147.345	D	A
SMITHFIELD	WR4BBO	146.37	146.97	D	
SPRING LAKE	WR4BCA	146.115	146.715	N	
STATESVILLE	WR4AZS	146.085	146.685		PA
SYLVA	KA4V	147.90	147.30	D	
TRINITY	WD4KUN	144.69	145.29	N	P
UNION CROSS	WB4RGV	147.915	147.315	N	
WADESBORO	W4USH	146.235	146.835	N	
WAYNESVILLE	N4SM	147.87	147.27	D	PA
WILLIAMSTON	WA4TKJ	146.295	146.895		
WILMINGTON	WR4AVF	146.13	146.73	D	
WILMINGTON	WR4AHL	146.22	146.82	D	
WINSTON-SALEM	W4HKB	144.58	145.19	N	P
WINSTON-SALEM	WA4GIC	146.04	146.64		A

SIX METERS

CARY	WR4AVP	52.35	53.35	N	
CHARLOTTE	WA4TPZ	52.07	53.07	N	P
HICKORY	WR4ACM	52.47	53.47	D	
HILLSBOROUGH	WA4WTX	52.01	53.01		
NEWPORT	K4GRW	52.01	53.01		P
RALEIGH	WR4AOE	52.05	53.05		
RALEIGH	WA4PEN	52.25	53.25	D	C
ROBBINSVILLE	WR4BAN	52.15	53.15	D	

220 MHZ

ASHVL/MT PISGAH	WR4AEV	222.34	223.94		
BURLINGTON	WA4YGD	223.22	224.82		O
FAYETTEVILLE	WR4ADK	222.42	224.02		
HICKORY	WR4ACM	222.42	224.02	D	AL
HIGH POINT	K4AZA	222.32	223.92		AL
HILLSBOROUGH	WA4WTX	222.34	223.94		
LOCUST	WR4BBA	222.40	224.00		
MORGANTON	WB4PML	223.36	224.96	N	
RALEIGH	WA4PEN	223.04	224.64	D	
SALISBURY	W4EXU	223.16	224.76		
SAURATOWN MT	WR4AOW	223.28	224.88		
STATESVILLE	WR4	222.70	224.30	N	P
SYLVA	KA4V	223.34	224.94	D	C
WINSTON-SALEM	WB4UGW	222.44	224.04	N	P
WINSTON-SALEM	WA4GIC	223.10	224.70		R

450 MHZ

ASHEVILLE	WR4ALE	449.90	444.90	N	
CHARLOTTE	WR4ALO	449.85	444.85	N	
CONCORD/KANNAP	WA4UPO	449.65	444.65	N	C
DENVER	WR4	447.75	443.75	N	P
DURHAM	WR4	449.00	444.00	N	P
HIGH POINT	K4AZA	447.90	442.90		L
HILLSBOROUGH	WA4WTX	449.10	444.10		PA
HILLSBOROUGH	WB4DBB	449.35	444.35	D	
LILLINGTON	WR4	448.10	443.10	N	P
RALEIGH	WB4VIM	449.25	444.25		C
SALISBURY	W4EXU	449.70	444.70		P
SAURATOWN MT	WR4AOW	448.00	443.00		C

10 METERS

NEWPORT	K4GRW	29.56	29.66		P

VIRGINIA REPEATERS

TWO METERS

ALEXANDRIA	W8LMB	144.83	145.43	M	
ALEXANDRIA	WR4AXB	146.055	146.665	M	
ALEXANDRIA	W4HFH	146.085	146.685	M	
ALEXANDRIA	WA4CCF	147.915	147.315	M	
BARREN SPRINGS	WR4AFQ	146.07	146.67		
BERRYVILLE	WR4APE	147.90	147.30	M	
BLACKSBURG	WR4AXT	146.31	146.91	N	C
BLACKSBURG	WA4YRJ	146.43	147.03	D	
BLAND	N4AZJ	144.75	145.35	N	
BLUEFIELD	WD4RPT	144.89	145.49		A
BLUEFIELD	WD4RPT	146.16	146.76		
BLUEFIELD	WD8OGY	146.415	147.015		PA
BRIARPATCH MT	WR4AHR	147.69	147.09		
BRISTOL	W4SZP	146.28	146.88		
BRUMLEY MT	WR4ATJ	146.01	146.61	N	
CHARLOTTESVILLE	WR4ATL	146.16	146.76		
CHARLOTTESVILLE	WR4	146.325	146.925	N	C
CHESAPEAKE	WR4ACN	146.19	146.79	D	
CLIFTON FORGE	K4QEL	147.90	147.30	N	
COLE MT	WR4BCI	147.93	147.33	N	
COVINGTON	WA4HTI	146.22	146.82		
CRIMORA	W4NPT	147.675	147.075	N	
CULPEPPER	WR4BCS	147.72	147.12	M	
DAN/WHT.OAK MT	WR4BDN	146.10	146.70		
DANVILLE	K4YZR	147.95	147.35	N	
DANVILLE(DCC)	WB4GJG	146.325	146.925		
DUBLIN	WB4UQZ	147.78	147.18		
FAIRFAX	WR4AAD	146.19	146.79	M	
FARMVILLE	WR4ASW	146.31	146.91	D	
FOREST	WR4ADY	146.16	146.76		A
FRANKLIN	K4SPS	147.90	147.30	D	PA
FREDRICKSBURG	WB4DNT	147.615	147.015	M	
FRONT ROYAL	WB4NER	144.75	145.35	M	P
GALAX	WR4AHR	144.53	145.13		
GALAX	WA4ZIV	144.83	145.43	N	P
GRUNDY	WR4	147.90	147.30	N	A
GUM SPRING	KB4GX	147.87	147.27	N	
HAMPTON	WR4ALW	146.13	146.73	D	
HAMPTON	WR4AFT	146.34	146.94	N	T
HARRISONBURG	WR4ATG	146.025	146.625	N	
HERNDON	WA4TXE	146.115	146.715	M	P
JOHNS MT/EVNGTN	WB4JBJ	147.705	147.105		R
KLMNRK/SALUDA	WA4UAF	147.93	147.33		
LEXINGTON	WA4WBD	146.07	146.67		
LYNCHBURG	WR4AXO	146.01	146.61	D	
LYNCHBURG	WD4EXH	147.84	147.24	N	
LYNCHBURG	WB4MBO	147.975	147.375	N	C
MANASSAS	WB4HHN	146.37	146.97		PA
MARTINSVILLE	WB4HAD	147.885	147.285	N	
MCLEAN	WR4APC	147.81	147.21	M	R
NEW MARKET	WR4ATG	146.025	146.625	M	
NORFOLK	WR4ANT	146.10	146.70	N	
NORFOLK	WA4SBC	147.645	147.045	N	
PETERSBURG	K4SII	147.78	147.18	N	P
PETERSBURG	WR4BBU	147.84	147.24		
PETERSBURG	W4LGG	147.99	147.39	D	PA
PORTSMOUTH	K4LMY	146.25	146.85	N	
RICHMOND	WB4QEY	146.04	146.64		
RICHMOND	WR4BBZ	146.28	146.88	N	PA
RICHMOND	W4ZA	146.34	146.94		T
ROANOKE	WR4AHT	146.34	146.94	N	
ROANOKE	W4CA	146.385	146.985		EAL
ROANOKE/SALEM	WR4AFE	146.28	146.88	N	L
SHENANDOAH	WB4DAK	147.855	147.255	N	P
SOUTH BOSTON	WR4AYU	146.46	147.06	N	
STAUNTON	WR4ACL	146.37	147.97	N	
STAUNTON	W4WRN	147.645	147.045	N	
STERLING	WA4TXE	146.115	146.715	M	
SUFFOLK	WR4AKS	146.40	147.00	D	PA
TAZEWELL	WA4QKH	147.75	147.15	D	
TYSONS CORNER	K4VYN	146.31	146.91	M	PA
VIRGINIA BEACH	WA4KXV	146.37	146.97	D	EA
WARRENTON	WB4FJT	147.765	147.165	M	P
WAYNESBORO	W4BLD	147.63	147.03		PA
WILLIAMSBURG	W4NTG	146.07	146.67	N	
WINCHESTER	W4RKC	146.22	146.82		
WOODBRIDGE	WR4AII	147.84	147.24	M	A

SIX METERS

ABINGTON	WR4ATJ	52.01	53.01	N	L
ALEXANDRIA	WA4CCF	52.13	53.13	M	C
CHRISTIANSBURG	K4AUG	52.03	53.03	N	P
DANVILLE(DCC)	WB4GJG	52.13	53.13		C
LEXINGTON	WR4BCI	52.01	53.01	N	
NORFOLK	WR4ATK	53.525	52.525	D	
TAZEWELL	WA4QKH	52.05	53.05	N	P

220 MHZ

ALEXANDRIA	WA4CCF	223.22	224.82	M	P
GALAX	WA4DFH	222.74	224.34	N	P
LYNCHBURG	WB4DBB	223.34	224.94	D	C
TYSONS CORNER	K4GCM	222.34	223.94	M	

450 MHZ

ALEXANDRIA	WR4AAG	439.25	426.25	M	V
ALEXANDRIA	WA4CCF	449.60	444.60	M	
ANNANDALE	WR4AQG	444.85	449.85	M	
CHESAPEAKE	WR4	449.95	444.95	N	P
COLE MTN	WR4BCI	449.05	444.05	N	P
FALLS CHURCH	WB8CRK	449.45	444.45	M	
LYNCHBURG	WB4IUS	449.50	444.50	D	T
MANASSAS	WD4JCE	444.225	449.225	M	C
PETERSBURG	WR4BBU	449.50	444.50		
RICHMOND	WA4ONG	449.85	444.85	N	P
ROANOKE	W4CA	442.50	447.50		L
TAZEWELL	WA4QKH	448.90	443.90	D	P
TYSONS CORNER	WB6GUS	443.50	448.50	M	P
TYSONS CORNER	K4LHB	444.75	449.75	M	
WAYNESBORO	W4BLD	449.05	444.05		
WAYNESBORO	W4BLD	449.30	444.30		
WOODBRIDGE	WR4AII	444.90	449.90	M	

REPEATER SYMBOLS

N	NON Member CVRA	L	Linked
A	Autopatch	C	Under Construction
PA	Private Autopatch	P	Proposed Repeater
EA	Emergency Autopatch	O	Off Air Temporarily
T	Tone Access	D	Delinquent Member
M	T-MARC Repeater	R	RTTY

SOUTH CAROLINA REPEATERS

TWO METERS

ANDERSON	WR4AIO	146.37	146.97	D	PA
CAROWINDS	WR4ABK	147.78	147.18		
CHARLESTON	WR4	146.10	146.70	N	P
CHARLESTON	K4ILT	146.16	146.76	D	A
CHARLESTON	K4ESG	146.19	146.79	N	C
CHARLESTON	N4SC	146.34	146.94	D	T
CHARLESTON	WR4BCP	147.87	147.27	N	A
CHERAW	WD4HEH	147.735	147.135	D	
COLUMBIA	WR4AYE	146.16	146.76		
COLUMBIA	K4AVU	146.28	146.88	N	
COLUMBIA	WR4ACD	146.34	146.94	N	
COLUMBIA	WR4AYE	147.84	147.24		
COLUMBIA	WB4VLY	147.93	147.33	D	
DILLON	KA4BGA	146.145	146.745	N	
DORCHESTER	W4NAT	147.78	147.18	D	
EDMUND	WR4ACD	147.96	147.36	N	A
FLORENCE	W4ULH	146.25	146.85	D	
FLORENCE	WA4ISM	146.37	146.97		PA
GASTON	WB4NEP	144.61	145.21	D	A
GREENVILLE	WR4ADG	146.01	146.61	N	
GREENVILLE	W4AZT	146.10	146.70		A
GREENVILLE	WR4ADG	146.22	146.82	N	A
GREENVILLE	WR4	147.675	147.075	N	PA
GREENVILLE	WB4PCP	147.99	147.39	N	C
GREENWOOD	WR4AUE	147.765	147.165	D	PA
GREER	W4IQQ	146.34	146.94	D	
HODGES	KB4YF	144.53	145.13	N	C
LANCASTER	WC4AAW	146.10	146.70	D	PA
LAURENS	WA4LDP	146.25	146.85	D	A
LEXINGTON	WR4AGK	147.255	146.835	N	
LITTLE MT	K4AVU	147.81	147.21	D	C
LONG MT	WA4JRJ	147.87	147.27	D	
LYMAN	KS4I	147.885	147.285		
MARION	W4YLT	146.40	147.00	D	
MYRTLE BEACH	WA4KGN	146.01	146.61	D	
N. AUGUSTA	K4FKJ	146.13	146.73		
N. AUGUSTA	WR4ALS	147.72	147.12	N	
ORANGEBURG	WR4AQY	147.69	147.09	D	A
PICKENS	WR4ADP	146.40	147.00		
ROCK HILL	WC4ABD	146.43	147.03	D	PA
SAVANNAH (GA)	W4HBB	146.28	146.88		A
SAVANNAH (GA)	W4HBB	146.37	146.97		A
SPARTANBURG	K4JLA	147.69	147.09	N	PA
SUMMERVILLE	WR4	146.25	146.85	N	C
SUMTER	WR4AOI	146.04	146.64	D	PA
SUMTER	WD4ECQ	147.615	147.015	D	
SUMTER/SHAW	WR4AUS	147.66	147.06	D	
TOCCOA(GA)	KA4DIP	146.03	147.33		
WHITE HALL	WR4AQL	146.31	146.91	D	

TEN METERS

ANDERSON	N4JK	29.53	29.63	D	

220 MHZ

COLUMBIA	WB4URY	222.30	223.90	D	
GREER	W4ILY	222.38	223.98	N	PA
SASSAFRAS MTN	W4FHJ	222.46	224.06		
SUMTER	WR4AUS	222.34	223.94	N	C

450 MHZ

ANDERSON	N4JK	439.25	427.25	D	CV
CHARLESTON	N4SC	449.10	444.509	D	T
SUMMERVILLE	WR4	449.00	444.00	N	P

TENNESSEE REPEATERS

TWO METERS

ALAMO	WR4API	147.135	147.735	N	
ALTAMONT	WR4AWN	146.37	146.97	N	
BRISTOL	K4ILW	146.07	146.67		A
BRISTOL	WR4AXQ	147.60	147.00	N	
BROWNSVILLE	WA4ABU	146.685	146.085	N	
CHATTANOGA	K4CMY	146.01	146.61		
CHATTANOGA	W4DSK	146.19	146.79		A
CHATTANOGA	WR4AFS	147.60	147.00	N	
CLARKSVILLE	WR4AOO	147.60	147.00	N	
CLEVELAND	WR4AQV	147.78	147.18	N	
COLUMBIA	WR4AIX	147.72	147.12	N	
COOKEVILLE	WR4ANW	146.07	146.67	N	
COOKEVILLE	WB4QSJ	147.81	147.21	N	
COVE MTN	WA4KJH	146.25	146.85	N	PA
CROSSVILLE	WR4	147.93	147.33	N	
DAYTON	N4OU	147.99	147.39	N	
FAYETTEVILLE	WR4BAQ	147.63	147.03	N	
GALLITIN	WR4BCX	147.84	147.24	N	
GREENEVILLE	WR4AHP	146.10	146.70		
GREENEVILLE	WA4LYF	147.66	147.06		A
HENDERSONVILLE	W4KKO	144.89	145.49	N	
HENDERSONVILLE	WR4BCX	147.63	147.03	N	
JACKSON	WR4AQN	147.81	147.21	N	
JOHNSON CTY	WB4IKB	146.19	146.79		
JOHNSON CTY	WA4DIU	147.87	147.27		A
JONESBORO	WB4SQC	147.99	147.39		
KINGSPORT	WR4ADO	146.16	146.76	N	
KINGSPORT	WR4AGE	146.37	146.97	N	
KNOXVILLE	WB4JSD	144.51	145.11	D	R
KNOXVILLE	WR4AIA	146.01	146.61	N	
KNOXVILLE	WR4APU	146.13	146.73		
KNOXVILLE	WR4ADF	146.34	146.94	N	
KNOXVILLE	WR4AHF	146.40	147.54	N	A
KNOXVILLE	K4HXD	147.675	147.075	N	A
KNOXVILLE	W4BBB	147.90	147.30		
LAFOLLETTE	W4TZG	146.07	146.67		
LAKE CITY	WB4OAH	146.22	146.82	N	
LEBANON	WR4BBM	146.13	146.73	N	
MADISON	WR4AKN	146.04	146.64	N	
MANCHESTER	WR4ACI	146.10	146.70	N	
MEDINA	K4BEZ	146.37	146.97	N	
MEMPHIS	WR4	144.89	145.49	N	
MEMPHIS	WR4AYR	146.04	146.64	N	
MEMPHIS	WR4AOG	146.10	146.70	N	
MEMPHIS	WR4AGR	146.13	146.73	N	
MEMPHIS	WR4ABS	146.19	147.51	N	
MEMPHIS	WR4AHO	146.22	146.82	N	
MEMPHIS	WR4AZK	146.25	146.85	N	
MEMPHIS	WA4ETE	146.28	146.88	N	
MEMPHIS	WR4AEX	146.34	146.94	N	
MEMPHIS	WR4BLJ	146.40	147.00	N	
MEMPHIS	WR4AXF	146.46	147.06	N	
MEMPHIS	WR4BCU	147.63	147.03	N	
MEMPHIS	WR4AWT	147.69	147.09	N	
MEMPHIS	WB4DAZ	147.72	147.12	N	
MEMPHIS	WR5AII	147.75	147.15	N	
MEMPHIS	WR4	147.78	147.18	N	
MEMPHIS	WR4AZC	147.87	147.27	N	
MEMPHIS	WR4ASF	147.90	147.30	N	
MEMPHIS	WR4ATA	147.96	147.36	N	
MEMPHIS	WR4ASR	147.99	147.39	N	
MERRYVILLE	K4HXD	146.34	146.94	N	
MORRISTOWN	WR4	147.63	147.03	N	AP
MORRISTOWN	WB4AOH	147.825	147.225	N	
NASHVILLE	WR4AWV	146.01	146.61	N	

TENNESSEE REPEATERS

(Continued)

NASHVILLE	WR4AKN	146.07	146.67	N	
NASHVILLE	WR4ACS	146.16	146.76	N	
NASHVILLE	WR4AFA	146.19	146.79	N	
NASHVILLE	WR4ABV	146.25	146.85	N	
NASHVILLE	WR4ACY	146.28	146.88	N	
NASHVILLE	WR4AGX	146.34	146.94	N	
NASHVILLE	AI4P	147.615	147.015	N	
NASHVILLE	WR4AUX	147.75	147.15	N	
NASHVILLE	WB4HFS	147.78	147.18	N	
NASHVILLE	WA4YQC	147.87	147.27	N	
NASHVILLE	WB4ZSA	147.90	147.30	N	
NASHVILLE	W4KFK	147.945	147.345	N	
NASHVILLE	WR4AKN	147.96	147.36	N	
NASHVILLE	WR4	147.975	147.375	N	
NASHVILLE	WB4DLQ	147.99	147.39	N	
NEWBERN	AA4HF	146.745	146.145	N	
OAK RIDGE	K4RSV	144.85	145.45	N	
OAK RIDGE	W4SKH	146.28	146.88	N	
OAK RIDGE	W4SKH	146.37	146.97	N	A
OAK RIDGE	K4EAJ	147.72	147.12	N	
OAK RIDGE	K4EAJ	147.75	147.15	N	R
PARIS	WR4AYM	147.96	147.36	N	
POPLAR BLF(MO)	WOAXL	146.31	146.91		
PULASKI	W4JVO	146.715	146.115	N	
SAVANNAH	WA4HGN	146.31	146.91	N	
SHELBYVILLE	WR4AQM	147.66	147.06	N	
SHORT MT.	WR4AZF	146.31	146.91	N	
SPARTA	WR4ASV	147.69	147.09		A
SPRINGFIELD	WR4AGH	147.63	147.03	N	
UNION CITY	WR4AUQ	146.10	146.70	N	
UNION CITY	K4MVE	146.655	146.055	N	
WAVERLY	WR4AYB	146.685	146.085	N	
WINCHESTER	WR4AFH	146.22	146.82	N	

SIX METERS

KNOXVILLE	WA4OBJ	52.15	53.15	
KNOXVILLE	WR4BDK	52.46	53.46	
LAFOLLETTE	K4BGW	52.17	53.17	

220 MHZ

CHATTANOOGA	K4VCM	223.18	224.78		
GREENEVILLE	WB4NKM	223.34	224.94		
KNOXVILLE	WB4BYH	222.86	224.46	N	
LAFOLLETTE	K4BGW	222.80	224.40	N	
NASHVILLE	WR4	223.38	224.79	N	

450 MHZ

ALAMO	WB4EDS	448.75	443.75	N	L
MEDINA	K4BEZ	447.05	442.05	N	AL
MEMPHIS	WB4BDO	448.40	443.40	N	A
MEMPHIS	WA4FNL	449.50	444.50	N	A

Updated Index Ctsy: David Wolfe, WA4VVX, Tenn.

WEST VIRGINIA REPEATERS

ALDERSON	WR8AKZ	146.13	146.73	
BECKLEY	WR8AKZ	146.25	146.85	
BECKLEY	WR8ACO	146.34	146.94	
BRIDGEPORT	WR8ALC	147.105	147.705	
BUCKHANNON	K8WYH	146.25	146.85	
CHARLESTON	WR8AER	146.22	146.82	
CHARLESTON	WB8CQV	146.28	146.88	
CLARKSBURG	WB8ZVS	146.22	146.82	
COTTAGEVILLE	WR8AKV	146.31	146.91	
ELKINS	WR8AOH	146.04	146.64	
FAIRMONT	W8JM	146.31	146.91	
HUNTINGTON	WB8AZR	146.04	146.64	
HUNTINGTON	WR8AGH	146.16	146.76	
HUNTINGTON	KA8BKX	147.90	147.30	
LOGAN	WR8ADD	146.37	146.97	
MARTINSBURG	WB8VUZ	147.855	147.255	
MCMECHEN	W8WUX	146.31	146.91	
MORGANTOWN	WR8ABM	144.83	145.43	
MORGANTOWN	WB8YZT	146.085	147.955	
MULLENS	WR8AKX	147.63	147.03	
NEW MARTINSVLLE	WR8ABY	146.34	146.94	
OAK HILL	WD8OQJ	146.19	146.79	A
PARKERSBURG	WR8ACJ	146.37	146.97	
PARKERSBURG	WR8	147.96	147.36	
PARSONS	WR8AGU	146.115	146.715	
PENNSBORO	WR8	147.90	147.30	
PRINCETON	WB8NRK	146.46	147.06	
RAVENSWOOD	WA8USO	146.07	146.67	
RICHWOOD	K8VKB	146.34	149.34	
SCOTT DEPOT	K8SLI	147.87	147.27	
SPENCER	WB2HVN	146.01	146.01	
ST ALBANS	WR8AJS	146.40	147.00	
TERRA ALTA	WR8AEY	147.60	147.00	
WEIRTON	WR8AQA	146.34	146.94	
WELCH	WB8SXZ	144.85	145.45	
WHEELING	WR8AEW	146.16	146.76	

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GEORGIA REPEATERS

ADAIRSVILLE	WB4LRA	146.085	146.685
ALBANY	WR4ADM	146.10	146.70
ALBANY	WR4ANB	146.22	146.82
AMERICUS	WR4AQH	147.87	147.27
ASHBURN	K4QT	147.285	147.885
ATHENS	WA4BKF	146.13	146.73
ATHENS	K4TQU	147.375	147.975
ATLANTA	N4CLA	144.69	145.29
ATLANTA	WR4ABE	146.04	146.64
ATLANTA	W4DOC	146.22	146.82
ATLANTA	WR4ABC	146.37	146.97
ATLANTA	WR4ARK	146.40	147.00
ATLANTA	WR4AHS	147.855	147.255
ATLANTA GA TECH	W4AQL	147.66	147.06
AUGUSTA	WR4AGD	146.34	146.94
BALDWIN	WD4NHW	147.78	147.18
BRUNSWICK	WR4APZ	146.13	146.73
BUFORD	WR4BBV	147.87	147.27
CARROLTON	W4FWD	146.04	146.64
CEDARTOWN	WR4AZU	147.72	147.12
CLOUDLAND	N4AHE	147.225	147.825
COHUTTA-RTTY	WR4AXM	146.46	147.06
COLUMBUS	WD4BDU	144.71	145.31
COLUMBUS	W4YYE	146.13	146.73
COLUMBUS-RTTY	K4ACH	144.77	145.37
CONYERS	WB4SLZ	146.805	146.205
CONYERS	WD4JDM	147.81	147.21
COVINGTON	WA4ASI	146.925	146.325
CUMMING	W4BJT	144.81	145.41
CUMMING	WR4AOC	147.75	147.15
DALLAS	WR4AHM	146.25	146.85
DALLAS	KB4EO	147.96	147.36
DUBLIN	WA4HZX	147.96	147.36
FOLKSTON	K4DMK	146.19	146.79
FORSYTHE	WR4AQA	147.315	147.915
GAINSVILLE	WR4AEK	146.07	146.67
GRIFFIN	WR4AIV	146.31	146.91
GRIFFIN	WR4AEA	146.43	147.43
HAMILTON	AC4P	147.835	147.235
HAPEVILLE	WR4ABN	147.63	146.03
HARTWELL	WA4NBP	146.895	146.295
IRWINTON	WB4NFG	147.84	147.24
ISABELLA	W4MM	146.13	146.73
JESUP	WA4EQL	146.07	146.67
JONESBORO	WR4AED	144.85	145.45
KENNESAW	WB4UPC	145.43	144.83
KENNESAW	WB4BMC	146.13	146.73
KENNESAW	WR4AMN	146.28	146.88
KENNESAW	WB4UPC	147.94	147.34
LAGRANGE	WR4AVJ	147.93	147.33
LYONS	WR4APZ	146.22	146.82
MACON	WB4OLL	144.83	145.43
MACON	W4BKM	146.06	146.66
MACON	K4IIA	147.66	147.07
MARIETTA	W4PPT	147.075	147.675
MILLEDGEVILLE	WR4AUM	146.10	146.70
MOULTRIE	WD4KOW	146.19	146.79
NEWNAN	K4SEX	146.19	146.79
PINE MT VALLEY	WB4ULJ	144.59	145.19
QUITMAN	WR4BBH	146.28	146.88
RINGOLD	WR4ABZ	146.715	146.115
ROME	WR4ADH	146.34	146.94
ROSWELL	WA4BRO	144.87	145.47
SANDY SPRINGS	WB4CPL	144.75	145.35
SAVANNAH	K4NLX	146.10	146.70
SAVANNAH	WR4AVO	147.63	147.03
SAVANNAH*	W4HBB	146.28	146.88
SAVANNAH*	W4HBB	146.37	146.97
STONE MTN	WR4AED	146.16	146.76
STONE MTN-RTTY	WR4BAG	147.105	147.705
SVR CRK/MT ALTO	WR4BBG	147.90	147.30
SWAINSBORO	WR4APR	146.19	146.79
THOMASTON	K4IMK	147.99	147.39
THOMASVILLE	K4UFM	147.66	147.06
TOCCOA*	KA4DIP	147.93	147.33
UNION CITY	WA4UPE	146.025	146.625
VALDOSTA	WA4SMH	146.16	146.76
VALDOSTA	WA4SMH	147.135	147.735
VIENNA	WA4RWS	144.89	145.49
WARNER ROBBINS	WR4AFD	146.25	146.85
WARNER ROBBINS	WR4AZP	147.90	147.30
WAYCROSS	WR4AMK	146.04	146.64
WRIGHTSVILLE	WA4RVB	146.34	146.94
220 MHZ			
ATLANTA	W4LBP	223.22	224.82
KENNESAW	WB4UPC	222.34	223.94
KENNESAW	WB4UPC	223.34	224.94

***CVRA Full Member Repeater**

MARYLAND REPEATERS

ADELPHI	WB3FRW	144.77	145.37
ASHTON	WR3AFT	146.40	147.00
BALTIMGRE	WR3AFM	146.07	146.67
BALTIMORE	W3DID	147.63	147.03
BALTIMORE	WR3AIU	147.885	147.285
BEL AIR	K3GUX	146.175	146.775
BETHESDA	K3YGG	144.69	145.29
CHELTENHAM	WR3AGF	147.75	147.15
CHEVERLY	WR3ABC	146.01	146.61
COLLEGE PARK	W3EAX	144.89	145.49
COLUMBIA	K3CUJ	147.735	147.135
COLUMBIA	WR3AGP	147.99	147.39
CROWNSVILLE	WR3ACL	146.10	146.70
CUMBERLAND	WA3III	144.85	145.45
CUMBERLAND	WR3AGI	146.28	146.88
DAVIDSONVILLE	WR3AJP	147.705	147.105
E. BALTIMORE	WR3AFI	147.84	147.24
EASTON	WA3GVI	146.445	147.045
FREDERICK	WR3ABL	146.13	146.73
FREDERICK	WA3OHI	147.66	147.06
FROSTBURG	WR3AKV	147.99	147.39
GAITHERSBURG	WR3AKP	146.355	146.955
GLEN BURNIE	WA3PJQ	146.205	146.805
GREENBELT	WR3ABB	146.28	146.88
HAGERSTOWN	WR3ABT	146.34	146.94
HAVRE DE GRACE	WR3ADH	146.25	146.85
JESSUP	WA3DZD	146.16	146.76
LEXINGTON PARK	WR3ACP	146.04	146.64
LEXINGTON PARK	W3NET	146.265	146.865
N. BALTIMORE	WA3KOK	146.34	146.94
POTOMAC	WR3ACF	147.87	147.27
ROCKVILLE	W3RCN	144.65	145.25
ROCKVILLE	WR3ABM	146.04	146.64
SALISBURY	WR3ABS	146.22	146.82
SALISBURY	WA3YII	146.385	146.985
SEVERNA PARK	WR3ACL	146.10	146.70
SILVER SPRING	WR3ABU	146.25	146.85
SILVER SPRING	WR3AEO	147.78	147.18
W. BALTIMORE	WR3AGS	147.945	147.345
WASHINGTON DC	WR3AGX	147.96	147.36
WHEATON	WR3AFD	147.69	147.09
220 MHZ			
DAMASCUS	WR3AHS	222.98	224.58
DAVIDSON	K3SZN	222.28	223.88
W. BALTIMORE	WR3AKN	223.34	224.94
WASHINGTON DC	W3NKF	222.90	224.50
WHEATON	WR3AFD	223.30	224.90
440 MHZ			
BALTIMORE	WR3AFM	444.35	449.35
BURTONSVILLE	WA4DZD	448.65	443.65
E. BALTIMORE	W3WCQ	439.25	426.25
E. BALTIMORE	WR3AFI	444.55	449.55
FREDERICK	WA3OHI	443.75	448.75
FREDERICK	WR3ABL	444.80	449.80
GAITHERSBURG	WR3AKP	443.60	448.60
GLEN BURNIE	WA3MEJ	448.70	443.70
HARMANS	W3YVV	443.94	448.94
HAVRE DE GRACE	WR3ADH	448.10	443.10
JESSUP	WR3ADZ	449.10	444.10
LEXINGTON PARK	WA3UMY	448.05	443.05
ODENTON	WA3GPC	449.50	444.50
SILVER SPRING	WR3ACK	444.00	449.00
SILVER SPRING	WB3ARZ	448.45	443.45
SUITLAND	WR3AEK	444.40	449.40
W. BALTIMORE	WA3WLO	448.55	443.55
WASHINGTON DC	WA3KOK	444.975	449.975
WHEATON	WR3AFD	444.30	449.30

DELAWARE REPEATERS

DELMAR	WR3ABS	146.22	146.82
DOVER	WB3ILO	146.19	146.79
DOVER	WR3ABP	146.37	146.97
MILLSBORO	K3JL	147.675	147.075
NEWARK	WR3ACV	146.10	146.70
NEWARK	WR3AGQ	146.355	146.955
WILMINGTON	WR3ABA	146.13	146.73
WILMINGTON	WA3QLS	147.825	147.225
220 MHZ			
NEWARK	WB3JVX	222.36	223.96
NEWARK	WB3JVX	223.36	224.96
WILMINGTON	WD3DPJ	222.40	224.00
WILMINGTON	WR3AFK	222.94	224.54
440 MHZ			
NEWCASTLE	WB3JVX	448.05	443.05
WILMINGTON	WR3AHO	448.00	443.00

ALABAMA REPEATERS

ALBERTVILLE	K4WSS	146.16	146.76
ALEXANDER CITY	WA4KIK	146.37	146.97
ANDALUSIA	WR4AFE	146.34	146.94
ASHEVILLE	WR4AQS	147.81	147.21
ATHENS	WR4AKD	146.55	147.15
AUBURN	K4RY	147.84	147.24
BAY MINETTE	K4JIE	146.01	146.61
BIRMINGHAM	K4QWW	144.75	145.35
BIRMINGHAM	WR4ACB	146.16	146.76
BIRMINGHAM	WR4AEJ	146.28	146.88
BIRMINGHAM	WR4ADD	146.34	146.94
BIRMINGHAM	K4TWJ	146.655	146.055
BIRMINGHAM	N4YZ	146.985	146.385
BIRMINGHAM	KA4EIR	147.285	147.885
BIRMINGHAM	WR4AXA	147.63	147.03
BIRMINGHAM	WR4AZG	147.75	147.15
BIRMINGHAM	WA4MHO	147.93	147.33
BOAZ	WR4AJB	147.66	147.06
BREWTON (EAST)	WR4BAE	146.37	146.97
CHEROKEE-BARTON	K4YVV	146.16	146.76
CLANTON	WR4AYJ	146.19	146.79
CULLMAN	WR4ASY	146.25	146.85
DECATUR	WR4ACK	146.40	147.00
DEMOPOLIS	WR4AJN	146.04	146.64
DOTHAN	N4AN	146.25	146.85
ENTERPRISE	WD4ROJ	147.84	147.24
EUFALA	WR4AQC	146.10	146.70
EVERGREEN	WR4ALR	146.31	146.91
FAIRHOPE	WA4TPF	146.10	146.70
FAYETTE	K4ACL	147.99	147.39
FLORENCE	WR4AOK	146.22	146.82
FLORENCE	WR4AXE	146.28	146.88
FLORENCE (UALA)	WB4SRG	146.31	146.91
FORT PAYNE	W4RNX	147.87	147.27
GADSEN	WR4AEZ	146.22	146.82
GADSEN	WR4AGI	146.37	146.97
GRADY	W4AP	147.78	147.18
GREENVILLE	K4TNS	146.07	146.67
GROVE HILL	WR4ATT	147.87	147.27
GULF SHORES	WR4AMF	146.04	146.64
GUNTERSVILLE	K4VQJ	147.165	146.565
HALEYVILLE	K4KQE	146.19	146.79
HAMILTON	WA4RNN	146.37	146.97
HAMILTON	WA4RNN	146.985	146.385
HARTSELLE	WR4BDB	147.96	147.36
HEADLAND	WR4ADX	146.16	146.76
HUNTSVILLE	WR4AIU	146.04	146.64
HUNTSVILLE	K4IQU	146.34	146.94
HUNTSVILLE	WR4AYL	147.78	147.18
HUNTSVILLE	WR4AVG	147.90	147.30
JACKSONVILLE	WD4KTY	147.375	147.975
JASPER	WR4AFP	146.04	146.64
JASPER	WR4ASM	146.10	146.70
JASPER	WB4ACN	146.31	146.91
LANETT	K4DXZ	147.60	147.00
LEIGHTON	W4JNB	146.01	146.61
LEXINGTON	WR4???	147.84	147.24
LINCLON	KA4DQZ	144.89	145.49
MOBILE	WA4BPG	146.07	146.67
MOBILE	W4YXO	146.13	146.73
MOBILE	WR4AHQ	146.22	146.82
MOBILE	WB4BXM	146.34	146.94
MOBILE	WB4DCL	147.66	147.06
MONTGOMERY	WB6GDM	146.25	146.85
MONTGOMERY	WR4AUT	146.31	146.91
MONTGOMERY	WR4AJH	146.40	147.00
MONTGOMERY	WR4AHZ	147.87	147.27
MT. CHEAHA	K4BQP	147.69	147.09
OPELIKA	W4ZBA	146.34	146.94
OPP	WR4AKM	146.04	146.64
OXFORD	WR4AVM	146.10	146.70
PELL CITY	W4RKS	146.01	146.61
PHENIX CITY	WR4BBB	146.01	146.61
PHENIX CITY	N4BJZ	146.28	146.88
RIVERSIDE	WR4AQS	147.81	147.21
ROANOKE	K4JTW	146.865	146.265
SCOTTSBORO	WR4AUZ	146.31	146.91
SELMA	W4NCK	146.13	146.73
SELMA	WR4AXP	147.96	147.36
SMOKERISE	WB4YOX	144.85	145.45
STEELE	W4OEN	146.07	146.67
TALLADEGA	W4GBQ	147.96	147.36
TEXASVILLE	K4BQE	146.19	146.79
THOMASVILLE	WA4GNA	147.60	147.00
TROY	WR4AHH	146.22	146.82
TUSCALOOSA	WR4AEH	146.22	146.82
TUSCALOOSA	WA4QAZ	146.37	146.97
TUSKEGEE	WR4ASH	146.07	146.67
VERNON	WB4TLC	146.07	146.67
WETUMPKA	WR4AJI	146.04	146.64

YOU ONLY GET OUT WHAT YOU PUT IN

Continued From Page 1

District as leaders, the benefits will be quite rewarding

Aside from having a director, elected and designated to run the CVRA organization within the new district, the organization provides him with late up-to-date information of repeater frequencies, files and years of statistics and facts compiled by CVRA. His information includes frequencies and information about repeaters and planned repeaters in states all around him, information gathered for years and compiled on a computer and updated monthly or quarterly.

Another asset of the CVRA is the Journal, a communications vehicle with information from amateurs all around. New District amateurs get the Journal free when joining.

We also told them that a large organization such as the CVRA helps provide the necessary "clout" when strength is needed to overcome problems.

I reminded tham that when they join as a district, they BECOME the CVRA. Their elected Director and Vice-Director runs the CVRA in their district and coordinates with the main body of CVRA officers and other District Directors. This network of communications stretches across over 5 states now.

So when people, out of CVRA territory ask me what can they get out of joining the CVRA as a group or District . . . I tell them "You'll get out of it, only as much as you put in."

The CVRA has no intention of doing the work for any new group, and let them come along for the ride. They will have to do the job themselves, with our help and guidance, and expertise from 9 years of work.

And if and when they do . . . we all benefit!

—Wayne C. Williams, Editor

OBITUARIES

BECKY EDWARDS, WA4MJZ — Died in December. Becky, wife of Joe, W4EL was well known and respected in the Durham area. She was active with the club and worked hard at the Durhamfest each year. Becky's smiling face and bubbling enthusiasm will be missed.

CHARLES (CHARLIE) STOUT, W4CS. Charlie, one of the most known and loved Amateurs in North Carolina died in a Greensboro hospital in December. Charlie dated back to the early 30's where his first Amateur station was a spark generator in a Chicken coop. Charlie's death is a tragic loss to the Amateurs in the Greensboro area.

SALES OPPORTUNITY

Sales Agent for General Electric Manufacturer's Representative selling communications systems. We have opening for sales professionals in local territories. Must have sales experience and be capable of opening new accounts. Salary plus commission for first three months, then liberal commission plan.

TWO-WAY RADIO OF CAROLINA, INC.

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Call Charles Lambert for Interview. Mon. Wed. 9 A.M. 5 P.M.

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OFFICERS ELECTED FOR YCARS

—BY Phillip Loss, WA4QQG

York County (S.C.) Amateur Radio Society (YCARS) has new officers as of Jan. 1980. They are: PRES., Phillip (P.J.) Loss, WA4QQG; V.P. Lane Tarleton, WA4ZQQ; SEC., Carl (Smokey) Tucker, KA4ASJ; TREAS., Sam Foster, WA4RBO and CUST., Pete Krenn, WB4KJZ.

Our goals are; to continue community service; increase club membership; increase club participation by monthly programs; and run at least one novice class.

During the last year, under the leadershiop of Bill Phillips WD4HBX, the club has made strides in becomming more public service oriented by providing communications for two local half marathon races. we also turned our repeater over to Civil Defense priority and replaced WR4AJO with the new C.D. call: WC4ABD. In addition we set up a new FT 301-D High frequency club station.

We welcome visitors and prospective members to join us on the second and fourth Thursday of each month at Beaty Plaza, Rock Hill, S.C. Just give us a call on 146.43/147.03 for talk-in to the meeting.

MURPHY'S COMPONENT LAW

The most delicate component in your new kit you are preparing to build, will always be the one to drop . . . on the floor . . . which is usually concrete . . . .

SOUTH CAROLINA DISTRICT NEWS ITEMS

Jack Watson, W4YPD, Director

HODGES . . . Jim Long, KB4YF plans a new repeater in Hodges, near Greenwood. CVRA has coordinated the sub band frequency of 53-13 for the machine. Jim said he hopes to get the machine on the air in the near future. (Jack, W4YPD)

LYMAN . . . KS4I and AC4B recently got their new machine on the air. They have joined the CVRA. The machine on 885-285 will be used primarily for DX coordination for the fellows in the Greenville-Spartanburg area. The Motorola machine will be duplexed at a later date. The Spartanburg-Greenville DX. Assoc. sponsors the machine located at the home of Ken, KS4I with antenna on top of his 110 foot tower. Reps to the CVRA are Ray, AC4B and Ken. (Jack, W4YPD)

GREENVILLE . . . Harold Bradley, WB4PCP has coordinated the frequency of 99-39 for a new repeater to be located atop the Greenville Hospital. He reports that the machine will be of low power, mainly for local operation in the Greenville area. On-air date should be very soon. (Jack, W4YPD)

BOB McCORMICK K4FRX . . . Vice Director for South Carolina was in the hospital at press time, also preventing him from making the CVRA Annual Meeting, Dec. 29. Jack should be out and doing well soon.

ASSISTANT DIRECTORS . . . are needed for the CVRA in the Eastern and Western parts of South Carolina, preferably in the Greenville-Spartanburg area, and the Pee Dee area. An assistant Director may be appointed by the Director, and assists him in repeater coordination, providing information about repeaters, and helping in membership for his particular part of the State. If you would like to spend some time assisting with the CVRA, contact the S.C. State Director, Jack Watson, W4YPD, his address is on the back cover.

NEWS is happening all over South Carolina. If you would like to help pass information about our state to the CVRA Journal, contact the State Director or the Vice Director for S.C., their names and addresses are on the back cover. We need your assistance!

COLUMBIA . . . The owners of the 81-21 and sub band 61-21 repeaters in Columbia have bought a new G.E. repeater for the sub band machine. They are hopeful the new equipment will give much improved coverage and service for the Columbia area.

COLUMBIA . . . Several amateurs in the Columbia area have set up and are running radioteletype on 2-meters. They are presently using 147.70 simplex and are creating considerable interest in RTTY in the Columbia area. Among the active ones are AD4W, WA4FTY and WB4UGV.

COLUMBIA . . . Butch Kormer, K4NLM is back in Columbia. He was the original part owner of the 16-76 repeater and helped put the machine on the air years ago. Butch is a big asset to the Amateur community, and Columbia is glad to have him back. (Jack W4YPD)

LAURENS . . . The 25-85 Laurens repeater is turned over to the RTTY fellows after 9:30 p.m. each evening. At present only Spense, K4KEP is control operator and must be around for RTTY operation. Some of the RTTY users, Slim, KA4V John of Greenville and Gene of Winnsboro. The group runs both 60 and 100 wpm on the repeater.

LAURENS . . . The Carolina Computer and ARA elected new officers for the year. They are WA4LDP, Pres., WD4BJY, V.P.; WD4BYE, Sec.; and K4KEP, Treas.

BEAUFORT . . . A new Amateur Radio club was formed this Winter in the Beaufort area. The Island ARA is in the process of locating and purchasing a repeater, locating a suitable site and coordinating a frequency. They hope to be able to locate the new machine somewhere in Beaufort County. It will be on 2-meters. (Tommy, WB4PVL)

ATLANTA (GA.) . . . Bill, KK4C (formerly WB4DPS from Durham) now a full-fledged Georgian reports downtown Atlanta's first 220 mhz repeater. He said the machine is gaining activity daily and after more Clegg 220 rigs become available in 1980, activity should really pick up. The machine is located on 223.22-224.82. (Bill, KK4C)

CVRA DISTRICTS NET REGISTER(Local Times Indicated)

TWO METERS - FM

ANDERSON SC	37/97	WR4AIO	ANDERSON RADIO CLUB NET	DAILY	2130
ASHEVILLE NC	16/76	WA4BVW	YL NET	THU	2030
ASHEVILLE NC	16/76	WA4BVW	WESTERN NORTH CAROLINA TFC NET	TUE	2030
BENSON NC	87/27	WR4ARL	JOHNSON ARS NET	DAILY	1930
BLUEFIELD VA	4.89/5.49	WD4RPT	TWIN STATE EMERG. NET	TU-TH	1900
BLUEFIELD VA	16/76	WD4RPT	EAST RIVER ARC NET	WED	2030
BURLINGTON NC	07/67	WR4AYO	ALAMANCE COUNTY ARES NET	MF	2100
CATAWBA COUNTY NC	82/82		CATAWBA COUNTY RACES NET	MON	1900
CHARLOTTE NC	34/94	WR4AEU	METROLINA 2-METER EMERG. NET	DAILY	2100
CHERAW SC	735/135	WD4HEH	CHESTERFIELD COUNTY ARS NET	TUE	2030
DANVILLE VA	10/70	WR4BDN	LAST CAPITOL SERVICE NET	TTHSN	2030
DILLON SC	52/52		DILLON CO. ARC NET	MON	1830
DORCHESTER SC	78/18	W4NAT	DORCHESTER AREC/RACES NET	1ST M	
DUBLIN VA	78/18	WB4UQZ	NEW RIVER VALLEY ARC NET	SUN	2100
DURHAM NC	34/94	WR4BEK	TRIANGLE RADIO ALERT NET	DAILY	2030
DURHAM NC	34/94	WR4BEK	POSSUM TROT NET	MF	0630
FAYETTEVILLE NC	31/91	WR4ANN	POSSUM TROT NET	MF	0630
FAYETTEVILLE NC	31/91	WR4ANN	CAPE FEAR ARS NET	DAILY	1900
FLORENCE SC	37/97	WR4AGM	FLORENCE 2-METER NET	MON	2000
FOREST VA	705/105	WB4JBJ	VA. TELETYPE SOC. RTTY NET	MON	2000
GREENSBORO NC	16/76	WR4AOD	CVRA NEWS NET	WED	2030
GREENSBORO NC	63/03	WD4IPZ	GUILFORD ARS TFC & TRNG NET	TUE	2100
GREENSBORO NC	72/12	K4CJZ	GUILFORD COUNTY EMERG. NET	THUR	2100
GREENVILLE NC	52/52		BRIGHTLEAF ARS NET	TUE	2100
GREENVILLE SC	01/61	WR4ADG	BLUE RIDGE ARPSC NET	TUE	2100
GREENWOOD SC	765/165	WR4AUE	ABBEVILLE-GREENWOOD EMERG. NET	TUE	2200
GRIFTON NC	16/76	WR4ABP	ENC EMERGENCY NET	THU	2100
KILMAR/SALUDA VA	93/33	WA4UAF	RAPPAHANOCK ARA CLUB NET 4TH	TUE	2100
JACKSONVILLE NC	40/00	WD4FVO	ONSLOW ARC NET	WED	2100
KNOXVILLE TN	90/30	W4BBB	MIDEASTERN TENN EMERG. NET	M-F	2100
LAFOLLETTE TN	07/67	W4TZG	CAMPBELL CO 2-MTR EMERG. NET	TTHSN	1900
LANCASTER SC	10/70	WC4AAW	LANCASTER CO. NET	SUTTH	2030
LAURENS SC	25/85	WA4UZA	LAURENS COUNTY ARES NET	SUN	2030
LAURINBURG NC	025/625	WR4AOX	SAND HILLS EMERGENCY NET	DAILY	1930
LEXINGTON SC	7235/6835	WR4AGK	LEXINGTON CO RACES NET	WED	2100
LUMBERTON NC	96/36	WR4BDQ	LUMBERTON ARC NET	MF	2030
LYNCHBURG VA	01/61	WR4AXO	LYNCHBURG TWO METER FM NET	TUE	1900
MANTEO NC	34/94	W4PCN	FESSENDEN ARC NET	WED	2000
MORGANTON NC	75/15	WR4AQI	W. PIEDMONT VHF NET	WED	2100
MYRTLE BEACH SC	01/61	WA4KGN	GRAND STRAND 2-METER NET	WED	2100
NEWBERRY CTY TN	52/52	KB4CO	NEWBERRY COUNTY ARS NET	WED	2100
N. WILKESBORO NC	22/82	WB4PZA	FOOTHILLS RACES NET	MON	2100
N. AUGUSTA SC	13/73	WR4ABB	STATELINE NET LAST	SUN	2000
OAK RIDGE TN	22/82	WB4OAH	EAST TENN HOSP NET	TUE	2000
OAK RIDGE TN	28/88	W4SKH	ANDERSON COUNTY ARES NET	MON	1900
ORANGEBURG SC	69/09	WR4AQY	VHF NET	TUE	1900
RALEIGH NC	04/64	WR4ACF	RARS NET	MTTHF	2000
RALEIGH NC	28/88	WR4AOE	PIEDMONT COASTAL TFC NET	DAILY	2100
REIDSVILLE NC	25/85	K4YFT	ROCKINGHAM CTY. ARC NET	TUE	2100
ROANE CTY TN	72/12	K4EAJ	ROANE COUNTY ARES NET	THU	2000
ROANOKE VA	385/985	WR4AFY	ROANOKE VALLEY ARC NET	WED	2000
SALISBURY NC	13/73	WR4AAA	CENT. NORTH CAROLINA TFC. NET	DAILY	2200
SUMTER SC	04/64	WR4AOI	SUMTER RPTR. ASSN 2-METER NET	MON	2130
SUMTER SC	615/015	WD4ECQ	SARA-2 METER NET	MON	2100
TAZEWELL VA	75/15	WA4QKH	TRI-COUNTY 2-METER NET	SUN	2000
TIDEWATER AREA VA	37/97	WA4KXV	STARES NET (S. TIDEWATER ARES)	M-F	2100
WHITE HALL SC	31/91	WR4AQL	COASTAL ARA 2-METER NET	THU	2100
WINCHESTER VA	22/82	WR4AGT	SHENANDOAH VALLEY SERVICE NET	DAILY	1915
WINSTON-SALEM NC	04/64	WA4GIC	FORSYTH COUNTY AREC/RACES NET	WED	2100

450 MHZ

RALEIGH NC	432.09	N.C. STATE CLUB NET	WED	2100

1¼ METERS (220 Mhz) FM

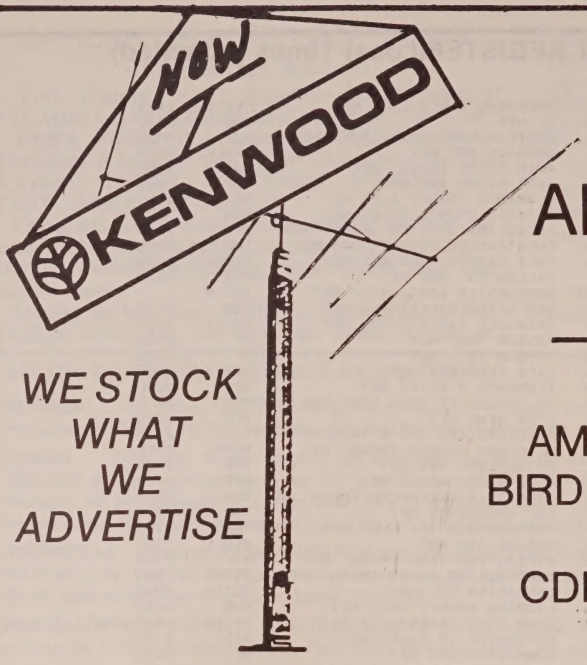
HILLSBOROUGH NC	2.34/3.94	WA4WTX	PIEDMONT 220 NET	TTH	2100
SAURATOWN MT NC	3.28/4.88	WR4AOW	CVRA NEWS NET	WED	2000

TWO METERS

APPOMATTOX VA	144.25	VIRGINIA SSB NET	THU	2200
GREENSBORO NC	144.25	NORTH CAROLINA S.W.O.T.	TUE	2100
GREENVILLE SC	144.25	SOUTH CAROLINA S.L.O.T.	M-TH	2100

SIX METERS

CHARLOTTE NC	50.40	CHARLOTTE HORNET NET (AM)	SUN	2100
CLEMSON SC	50.125	DIXIE NET (SSB)	W,SN	2100
RICHMOND VA	50.25	CENTRAL VIRGINIA NET (AM)	DAILY	1900



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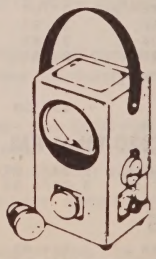

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25-1000 MHZ

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318½ N. Main St., Salisbury, NC 28144
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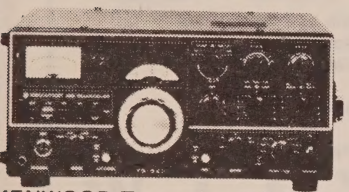
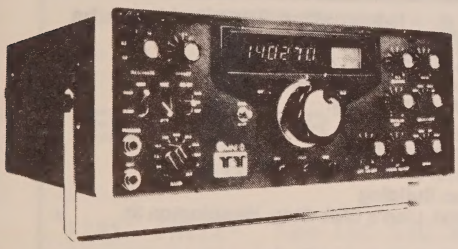
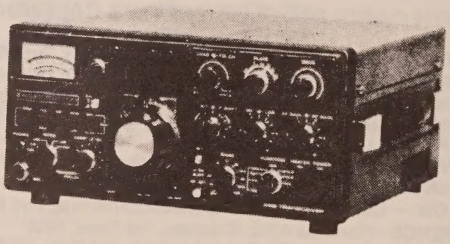


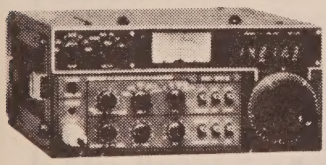
KENWOOD Transceiver TS-520S
160 thru 10M *"Surprise...call us!"*

KENWOOD

Alpha 77DX — One 8877 Tube







ICOM IC 701S, 160 thru 10M

Alpha 76A
— Two 8874 tubes Hipersil Xfmr.

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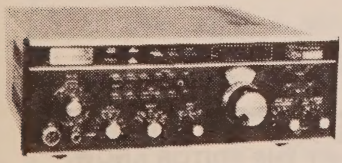

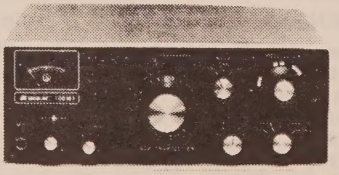

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VIRGINIA CLUB MEETING CALENDAR

Information Supplied by clubs

ALBERTA - Southern Piedmont ARC - 3rd Thursday, 1900, Southside Va., Community College
BLUEFIELD - East River RC, 1st & 3rd Monday, 2930 at Commercial Bank, Bluefield
CHARLOTTESVILLE - Albemarle ARC, 2nd Wed., 1930 at City Courthouse on 4th Street NE
CHARLOTTESVILLE - University of Virginia ARC, every other Mon., Rm, C119, Thornton Hall
COVINGTON - VHF Communications Assn., - 2nd Wed., 1930 at different Members homes
DANVILLE - Danville ARS, 1st & 3rd Friday, 1930, Danville Community College
FARMVILLE - Southwide ARS, 1st Thursday, 1930, Hampton-Sydney College, Farmville
GALAX - Briarpatch ARC, 1900, Galax Recreation Center
HAMPTON - Southern Peninsula AR Klub (Spark) 1st, 3rd Wednesday, 1930, VEPCO Building
LYNCHBURG - ARC, 2nd Friday, 2000, Virginia Baptist Hospital Auditorium
MARTINSVILLE - Patrick Henry ARA, 3rd Tues., 1930, 1st National Bank of Martinsville and Henry County
NEWPORT NEWS - SPARK 1st & 3rd Wednesday, 1930 at VEPCO Building in Hampton
NORFOLK - Hampton Roads Radio Assn., 2nd Thursday, 2000, Larchmont Library, Hampton Blvd.
NORFOLK - Tidewater ARC, 2nd & 4th Saturday, 1000, Fort Norfolk, Hampton Blvd.
PORTSMOUTH - Portsmouth ARC. 2nd and 4th Thursdays, 432 Broad Street, Portsmouth
RAPPAHANOCK - ARA, 2nd Tuesday, Meeting places will be announced monthly.
RICHMOND - Virginia ARA, Last Friday, 2000, Hermitage Auditorium, Westwood & Hermitage
RICHMOND - (RATS) 1st and 3rd Fridays, 1930, at the Stone House in Forrest Hill Park
RICHMOND - ARC, 2nd Friday, 2000, at the Stone House in Forrest Hill Park
ROANOKE - Roanoke Valley ARC, 2nd and 4th Friday, 2000, Colonial Ave. Presbyterian Church
VIRGINIA BEACH - ARC, 1st Thursday, 1900, at Virginia Beach Recreation Center
WINCHESTER - Shenandoah Valley ARC, 1st and 3rd Fridays, 2000, Club Building on Grace Street

SOUTH CAROLINA CLUB MEETING CALENDAR

Information Supplied by clubs

ANDERSON - RC, 4th Thurs. 1930, Anderson Cty. Arts Bldg. - Lunch Break Fri. Noon, Quency's Steak House
CHARLESTON - Holiday VHF Soc. 2nd Wed. 2930 - Pinehaven Shopping Center Meeting Room
CHARLESTON - Charleston ARS, Inc. - Home Federal Meeting Room, Ashley Plaza S.S.
CHARLESTON - Trident ARC, 3rd Wed. 1930 - Park Cir. Presy. Church.
CHERAW — Chesterfield Cty. ARS — 3rd Tue. 1900 — Chesterfield Technical Inst.
CLEMSON — Clemson Univ. ARC — (During School Year — Posted prior to meeting)
COLUMBIA — Columbia ARC — 1st Mon. 1930 — S.C. Electric and Gas Building
DILLON — Dillon Cty. ARC, Each Mon. Informal, 2nd Mon., Formal, 1900, Lion's Club Bldg. Washington St.
FLORENCE - Florence ARC, Shoneys, 1st Tues. 1930
FLORENCE - Florence FM Repeater Assn. 3rd Mon. 1930 Florence Darlington Technical Center
GREER - Greer ARC 1st Mon. 1930 Meeting Location announced monthly,
GREENVILLE - Blue Ridge ARS 1st Tue. 1930 Red Cross Building 3rd Tues. Dinner.
GREENVILLE - The Dutch Lunch Club - Mond. S & S Cafeteria at 1245.
GREENWOOD - Piedmont Tec ARC, 1st Mon. 1930 at Piedmont Tec.
KEEOWEE - Keeowee, Toxaway ARC, 3rd Tues. at Keeowee Toxaway Vistors Center
LANCASTER - Lancaster Cty. ARC, 3rd Thurs. 1930, at Standard S & L. Hywy 9 bypass.
LAURENS - Caro. Computer and ARA, 1930, 2nd Fri. Gen. Meet; 4th Fri Digital workshop
ORANGEBURG — Orangeburg ARC — 3rd Thurs. 1930 — Elks Club Hwy 301 N & 601 N
SUMTER - Sumter Repeater Assn. 3rd Mon. 2000 City/County Office Building Conference Room
WALTERBORO - Coastal Amateur Radio Assn. 2nd Sat. 1900, meeting announced on 31/91 net.

TENNESSEE CLUB MEETING CALENDAR

Information Supplied by clubs

KNOXVILLE - Fountain City ARC - 1st Mon., 1800, Chubbies Rest, Broadway Shop. Cen.
KNOXVILLE - Knoxville ARC - 3rd Fri., 1930, Knoxville Fire Dept. Training Cen.
LAFOLLETTE - Walnut Mt. ARC - 3rd Mon., 1900, LaFollette Recreation Center
MARRYVILLE - Smokey Mt. ARC - 4th Mon., 1930 Hall Road
OAK RIDGE - Oak Ridge ARC - 2nd & 4th Mon., 1930, Oak Ridge Civic Center
ROAN COUNTY - Roan Cty. ARES Club - 2nd Tues., 1930, Rockwood, Old Pond Grade School
SEVIERVILLE - Sevier County ARC - 3rd Thurs., 1930, Presbyterian Church

CLUB TREASURERS, SEND US YOUR CLUB MEETING SCHEDULES TO BE INCLUDED IN THE JOURNAL. IF YOU HAVE CHANGES IN YOUR CLUB MEETING, LET THE EDITOR KNOW.

Briarpatch Amateur Radio Club

CO-SPONSORED BY FOOTHILLS AMATEUR RADIO CLUB

REPEATER
WR4AHR
147.69/09
GALAX, VA.

AFFILIATE

MEMBER
cvra

SECOND ANNUAL WINTER HAMFEST

FEBRUARY 24, 1980

ELKIN, NORTH CAROLINA
at NATIONAL GUARD ARMORY

Breakfast and Lunch will be served at the Ham Fest Site.

Doors open 8:00 AM
Drawing at 3:30 PM

*FIRST PRIZE· Ten-Tec 540 and Power Supply
SECOND PRIZE· Dentron Antenna Tuner
THIRD PRIZE· Frequency Counter

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MATCHING 75 OHM HARDLINE

Continued From Page 13

measurements can be made with the hardline coiled up in the shack.

Now we must make an SWR versus frequency plot for our hardline. Take readings every 200 KHz except where the SWR approaches 1:1 and then make 100 KHz or less steps. The idea is to find the frequency at which the SWR is 1:1 as accurately as possible. Next we must make a graph of this data as shown in Figure 1 for the coax as found. Notice that the coax is "matched" at 145.4 MHZ which is not where we wanted it.

It is very doubtful that our seventeen wavelengths that we wanted is wrong. We will assume that there was some error in our value of the velocity of propagation and that this error is responsible for the coax being matched at 145.4 MHz instead of 144.1 MHz. You will see that it only takes a small error to produce these results.

To calculate the new velocity of propagation we use the matched frequency that we have just found.

First calculate one wavelength,

$$\frac{93.9899 \text{ feet}}{17 \text{ wavelengths}} \left(12 \frac{\text{inches}}{\text{foot}}\right) = 66.3458 \frac{\text{inches}}{\text{wavelength}}$$

Now:

$$\text{wavelength} = \frac{11803\,(v)}{f\,(\text{Mhz})} = \frac{11803\,(v)}{145.4} = 66.3458$$

Solve for v and

v = .81731

We have now calculated the velocity of propagation of our hardline. Now let's find out how long our coax should have been to match at 144.1 MHZ.

$$\text{wavelength} = \frac{11803\,(v)}{f\,(\text{Mhz})} = \frac{11803\,(0.81731)}{144.1} \text{ inches}$$

wavelength = 66.9444 inches = 5.5787 feet

Seventeen wavelengths is

17 (5.5787 feet) = 94.8379 feet

We now see that our 94 foot length is a little short Since we cannot lengthen our coax we must cut it down to the next halfwavelength point, which is 16.5 wavelengths.

16.5 (5.5787 feet) = 92.0486 feet

To find out how much to cut off the end of the coax, we must subtract the new length from the original length.

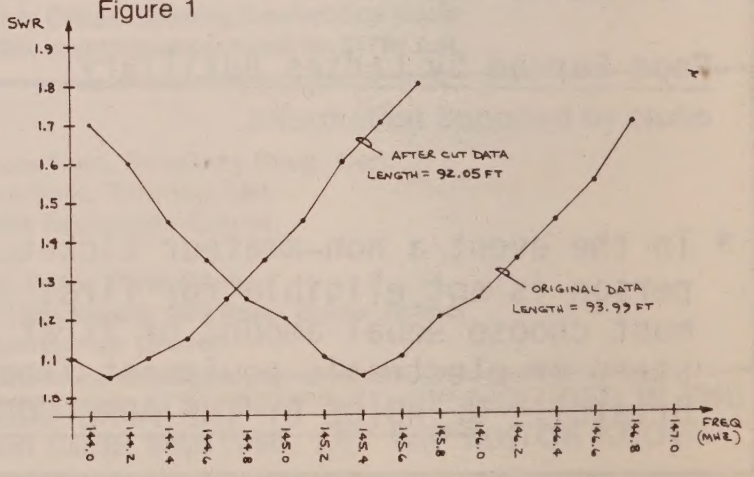
93.9899
-92.0486

1.9413 feet = 23 5/16 inches

Now cut this amount from the end of the coax and re-install the connector. Make another SWR versus frequency plot to check the result. The graph in Figure 1 also shows the plot that I obtained after the cut was mae.

Try this method. It definitely works and having a good low-loss transmission line is definitely worth the effort.

Figure 1



YCARS PROVIDES COMMUNICATIONS

-by Frank Porter, WB4YFD

This past Fall, the "York County Amateur Radio Society" (YCARS) was requested to provide communications for a half marathon race on Dec. 15, in Fort Mill, S.C. This was an excellent opportunity for a RACES exercise as well as to promote Amateur Radio and perform a public service. The race was sponsored by Spring Mills and they did an excellent job; it was an astounding success and we felt other clubs could benefit from the points we feel attributed to our part of that success:

1. Appoint a chairman and backup. This provides a focal point for both the club and the race group.
2. Get as many members as you can involved; don't forget the novices.
3. Commit to only what you can do, and then go all out to do it well.
4. Run the exercise as a directed net; it's not only efficient and orderly, but keeps someone in charge at all times.
5. Work up an alternate plan for when Murphy strikes.
6. Hold a practice session on location, simulating actual event conditions.
7. Have a meeting/coffee or lunch just prior to going on station. It is an ideal time to count noses and put out any last minute words.

These are by no means all it takes, but it is a very good starting point. One final word: Don't sit back and wait for a call — offer your services!

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Due to the tremendous response to our last advertisement announcing limited hours of operation, we have made yet another change in our operations.

Mr. Bill Hayes, W4AFM, has joined us and now manages the amateur sales portion of the business. Since Bill has come aboard, we are able to maintain full-time hours - MONDAY thru SATURDAY from 10 AM to 6 PM.

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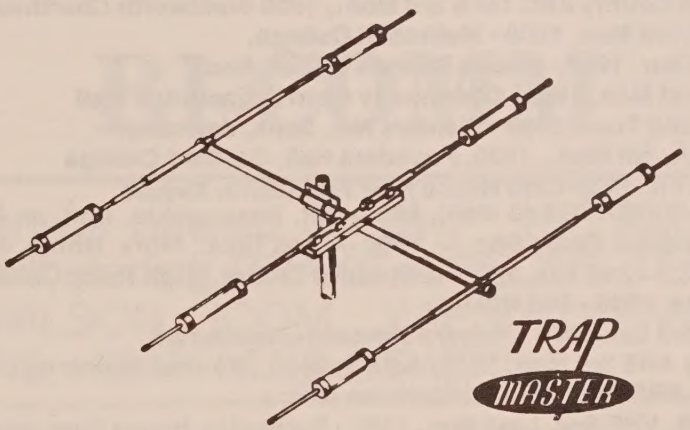

Mosley TA-33 $165.00

Mosley TA-33Jr. $135.00

8th ANNUAL RALEIGH HAMFEST SKED FOR APRIL 20

The 8th annual Raleigh Amateur Radio Society's (RARS)Hamfest will be held Sunday, April 20 at the Crabtree Valley Mall, U.S. 70 West in Raleigh, N.C.

The event which is staged each year under a covered parking deck promises even more this year with nice prizes, special interest meetings, expanded flea market and new equipment dealers. Three large motels are within walking distance of the hamfest site at the Mall.

The club will sponsor a Hospitality room in the West Community room on Saturday evening for early arrivals, from 7 to 11 p.m. Talk-in for the hamfest will be on 04-64 and 28-88. For additional information contact RARS Hamfest, P.O. Box 17124, Raleigh, N.C. 27619.

GUILFORD AMATEUR SOC ELECTS OFFICERS

The Guilford Amateur Society (GAS) in Greensboro, N.C. has a slate of new officers for this year. The recently elected officials are: Pres., Larry Allen, WD4CWC; V.P., Roy Smith, N4BYU; Sec., Elaine Allen, WD 4IPZ and Treas., Bill Steed, WA4PNN.

The club meets monthly at various restaurants in the Greensboro area. Announcement is usually made on the 63-03 repeater.

Incidentally, the 63-03 WD4IPZ/R repeater in Greensboro has a lady trustee. (Is this a first???)

MURPHY'S EQUIPMENT LAW

Merchandise purchased and covered by a thirty-day warranty, automatically will fail on the 31st day . . . . .

NORTH CAROLINA CLUB MEETING CALENDAR

Information Supplied by Clubs

ASHEVILLE - W. Caro. ARS, Bus. 1st Thu. 1900, Hlth. & Soc. Ser. Bldg., Dinner 2nd Mon. 1900 Hungry Bull
BENSON - Johnson ARS 3rd Thur. 1930 at 50-210 Fire Station
BURLINGTON - Alamance ARC 2nd & 4th Monday 1930, at 230 E. Summit Ave.
BURLINGTON - Alamance Repeater Assoc. Inc. Last Sat. 1900 at B & J Cafeteria
CARY - Cary ARC 4th Thur. 1930 at White Plains Methodist Church
CHARLOTTE - Mecklenburg ARS Last Tue. 1930-Red Cross Bldg on Park Rd.
CHARLOTTE — Charlotte ARC, 4th Thurs. 1900 — Club Building — WSOC-TV Tryon Street
CHARLOTTE - Friday Lunch Group Fri. 1200 - Mediterranean Rest. on Independence Blvd.
CONCORD - Cabarrus ARS, 3rd Mon., 1930, Kimball Memorial Lutheran Church, Aux. Bldg., Kannapolis
DURHAM - Durham FM Assoc. - 2nd Tue. 1800 - Picadilly Cafeteria, S. Sq. S.S.
DURHAM - Triangle Radio Alert Network - 3rd Thurs. 1800 Picadilly Cafeteria, S.Sq. S.S.
EDEN/REIDSVILLE - Rockingham County ARC 1st & 3rd Mon., 1900 Wentworth Courthouse
FAYETTEVILLE - Cape Fear ARS 3rd Mon. 1900 - Methodist College,
FRANKLIN - Franklin ARC, 2nd Thur. 1900 - Macon Savings & Loan Assn.
GASTONIA - Gaston Cty. ARS - 1st Mon. 1900 - Community room at Eastridge Mall
GREENVILLE - Brightleaf ARC - 2nd Tues. 2000 - Planters Nat. Bank, downtown.
GREENSBORO - Greensboro ARA, 4th Mon., 1830, Founders Hall, Guilford College
GREENSBORO - Greensboro RC Fri. 1930-Club House near Friendship Airport
GREENSBORO - Guilford Am. Soc. (GAS), 2nd Mon., 1830, Diff. Restaurants, Ann. on Repeater.
GREENSBORO — Ladies In Amateur Radio Soc. — 1900 — 2nd Tues., Mbrs. Home, 4th Tues., Apple House Cafe
HIGH POINT — High Point ARC — 2nd Tue. 1980 — Student Center, High Point College
HIGH POINT - High Point ARC Tue. 1930 - Old Mill Rd.
JACKSONVILLE - Onslow ARC 2nd Sat. 1000 - Howard Johnsons Restaurant
KANNAPOLIS - Cabarrus County ARS 3rd Mon. 1930, Activity Bldg., Kimball Memorial Lutheran Church
LAURINBURG - Scotland County ARS 1st Wed. - Cablevision Office
LEXINGTON - Healing Springs Mt. VHF Soc. Last Mon. 1930 - Burlington House Furniture Co., Personnel Office
LUMBERTON - Lumberton ARC, 3rd Thu. Robeson County Public Library at 1930
MORGANTON - Morganton ARC, 1st Mon., 1930, W. Piedmont Community College
NEW BERN - New Bern ARC, 3rd Thursday, 1930, Golden Corral Steak House
N. WILKESBORO — Foothills ARC — 1st Tue. 1930, Fairplains School, N. Wilkesboro
RALEIGH — Raleigh ARS — 1st Wed. 1930 — West Community Room, Crabtree Valley Mall
ROCKINGHAM — Rockingham ARC — 1st Thur — East Rock Fire Dept.
ROCKY MT.- ARS, 4th Tues., 1830, Farmer's Restaurant in Sharpsburg
SALISBURY - Rowan ARS & 4th Mon. 2000-Salisbury City Hall, Main Street
SHELBY - Shelby Radio Club 2nd Mon. 1830 Hungry Bull Restaurant, Dutch Supper
SILVA - Smokey Mt. ARC, 2nd Tue. 1900 - Southwest Tech. Institute
STATESVILLE - Iredell City ARS - 2nd Thurs. 1900 - Hall of Justice, Water & Tradd Sts.
WILMINGTON - Wilmington VHF Assn., 2nd Tue. of Jan. and all odd months, at Caro. Savings & Loan; Even Months Social Meet at New Hanover Mem. Hosp. Ed. Bldg.
WINSTON-SALEM — Forsyth ARC — 2nd Mon. 1930, Red Cross Building

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NORTH CAROLINA DISTRICT NEWS ITEMS

Ken Woodard, WA4BVW, Director

FAYETTEVILLE/FT. BRAGG . . . The 93-33 "Red Carpet" repeater in Fayetteville is alive and doing well. It was returned to service in October after a temporary absence for extensive modifications. The repeater gained two new 6dbd gain antennas; a Hustler G6-144B base Colinear for receive and a commercial grade Hi-Gain (4) J-Pole system for transmit. Excellent omni coverage for Cumberland and most surrounding counties is enjoyed 24 hours daily. Everyone is invited and encouraged to use the repeater. Fringe stations are requested to provide signal reports when the repeater is heard. Many thanks to WA4PSG, N4AGB and N4AIO for many hours of work in modifications and repairs. (Carl, W4LPL)

EDITOR APOLOGIZES . . . For some dumb reason, I keep referring to Carl Presler (spelled right this time) and his wife Betty. It was mentioned in the License tag story last issue. Carl again reminds me that his wife's name is Marie. Maybe it's a crease in my mind that makes me keep calling her Betty. Anyhow, Preslers, we apologize and hope I haven't caused Carl any anguish trying to explain to MARIE just who this BETTY is!!!!! By the way Carl, just how DID I get that name Betty????? I guess Betty Presler (Pressley) kinda rhymes like Kyle's and Conway's wives do, you remember Kitty Twittie and Betty Petty don't you. (Wayne, K4MOB)

RALEIGH . . . John Neal, a new resident of Raleigh, moving from the Charlotte area, reports he has coordinated the frequency of 449.25-444.25 for a new repeater. John indicates he hopes to have the machine going by early February, with coverage in the Wake County area initially, running 15 watts from the Motorola equipment. (WB4VIM, John)

WINSTON-SALEM . . . Fred Woiteneik, Jr., WB4UGW has assumed the Winston-Salem coordinated 220 frequency from another individual who obtained it last year. Fred said he hopes to have a machine going on 222.44-224.04 sometimes this year for experimental purposes. He said if the FCC approves ASCII he will be exchanging lots of programs for computers on the machine, along with other experiments. (Fred, WB4UGW)

DUNN . . . The new Dunn 10-70 repeater is on the air. The machine sponsored by the Chicora ARC (CAR) began operation in late November. It is located in Dunn on the Godwin Building Supply 330 foot tower. The GE Pro repeater has a Stationmaster antenna fed with ½-inch Heliax. The duplexer is a WP639. The repeater is now a CVRA full member.

GRIFTON . . . The WR5ABP Grifton 16-76 repeater will remain at present 1300/1100 feet elevation site on the old tower as long as possible, but hopefully will move to a similar elevation on the new tower later this year. ENC Repeater group does not want to cause problems with Greensboro and other 16-76 repeaters by going any higher when it is moved. The W4NBR/R equipments for 085-685 is reserve equipment previously held for 16-76 emergency use. The initial W4NBR/R installation will use GAM TG4MS antennas with 200-foot vertical separation on the highest available site on the new 2,000 foot Grifton tower. If the frequency and site works ok, in company with all the other RF services nearby, the club will probably install Super Stationmaster antennas on the permanent location. Installation of repeater is sked for April. (WB4LWX, Bill)

GOLDSBORO . . . The Goldsboro 25-85 repeater (formerly Seven Springs) has lowered its antenna about 30-feet from original installation on a Goldsboro FM radio station tower and reports better coverage. Autopatch is functioning well at new location. (WB4LWX, Bill)

SAURATOWN MT. . . . The Sauratown 220 repeater WR4AOW, was taken down for routine service for a few days in January. The machine on 223.28-224.88 has been going without problem for 2 years. Tommy WB4SNA said a couple of little problems in the transmitter were cleared up and the transmitter returned. Everything else fine. (Wayne, K4MOB)

FROM ONE EDITOR TO ANOTHER

In our story about the Mecklenburg ARC winning top score in the recent September VHF QSO Party, we received a story from Ted Goldthrope, WA4VCC. As we added information in the Editors note, we mentioned YPHRUM'S Law from the Mecklenburg ARS News and gave the impression the YPHRUM's law was an invention of Ted's.

The fact was that YPHRUM's Law was an invention of the editor of the Mecklenburg ARS News, Gerry Hutchison, KD4E. We apologize Gerry, was a slip of the typewriter.

In either case, the W4BFB boys led by Goldthrope, and cheered on by Hutchison's YPHRUM's Law, copped tops in the nation with their QSO Party score. (Wayne, K4MOB, Editor)

ELKIN WINTER HAMFEST KICKS OFF NC SEASON

The Briarpatch Amateur Radio Club presents its 2nd annual Winter Hamfest at the National Guard Armory in Elkin on Sunday, February 24th.

The hamfest which outgrew its quarters in Hillsville, Va. 3 years ago will be well attended if compared with last year's attendance. Breakfast and lunch will be served at the Hamfest site. Talk-in will be on the Briarpatch 69-09 repeater. Door prizes will be awarded. The hamfest features new dealers, and flea market in the heated Armory. Doors open at 8 a.m. with the drawing at 3:30 p.m. Anyone desiring additional information should call Phil M. Berry, N4AKZ at (703) 728-3203 or Earl Day, WB4GQP at (919) 835-1831.

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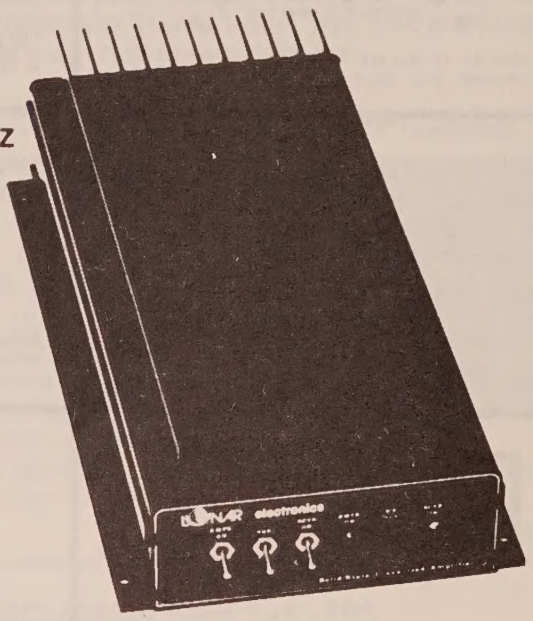

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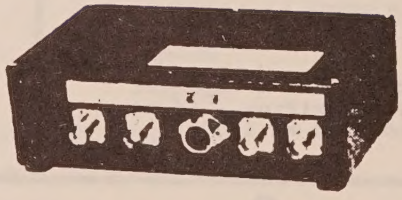

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USE CAUTION WHEN WORKING NON-STANDARD SIMPLEX FREQ

-by Ken Woodard, WA4BVW

Ever so often we find the standard simplex frequencies being utilized when we want to move off the repeater to chat with a friend. The new synthesized transceivers allow us to go anywhere we desire to operate simplex.

The CVRA has received several complaints lately of persons going on repeater outputs and inputs, operating simplex. Pure good operating practices tells us this is a no-no. Amateurs who operate simplex in the 146.40 to 146.46 region (not standard simplex frequencies) should exercise caution and check up 600 kc to be sure there is no repeater being keyed up.

The CVRA and ARRL bandplan allots the options of either High-in, or Low-in in this region for repeaters. Therefore there are repeaters with 146.40 inputs as well as 147.60 with outputs on 147.00. The same holds true with 146.43 and 146.46 and 147.63 and 147.66. A strong simplex signal on any of these frequencies obviously will key up a repeater nearby if it hears the signals. Aside from being un-neighborly like, it could prove to be downright embarrasing, not knowing you're being retransmitted for miles.

Standard 30 khz simplex frequencies are 146.49, 146.52, 146.55 and 146.58. Also 147.42, 147.45, 147.48, 147.51, 147.54, and 147.57. The CVRA has never published the 15 khz. splits between the simplex channels as usable, mainly because we never felt we were so crowded they were needed, but they are available and can be used without any problems, with the exception of 147.525 in Piedmont and Western North Carolina, about a 100 mile radius of Winston-Salem, where a 147.525-52.525 remote base system operates linkage on Sauratown Mt. north of Winston-Salem.

So when you go to a simplex frequency with a buddy, think a moment, get used to going to a standard or simplex split and you won't have to worry about possibly keying up a repeater. There are certainly enough Simplex frequencies available. So use caution and cooperate, it won't hurt you, and it will certainly help your repeater neighbors.

CVRA DECALS

Have you ordered your CVRA Decal yet? Send 25 cents for each decal desired, with a S.A.S.E. to: CVRA JOURNAL DECAL, Route 1, Box 806, Colfax, N. C. 27235.

COLUMBIA RC NEW OFFICERS

The Columbia Radio Club (S.C.) has elected new officers for the 1980 year. They are President, WB4TSB, Bill and WB4URY, Al, trustee of the repeater. Only one new board member was appointed by the board. He is K4ICL.

THE BODY OF THE ORGANIZATION

"WISH BONES" — They spend their time wishing others would do the work.
"JAW BONES" — They do all the talking
"KNUCKLE BONES" — They knock what work others do.
"BACK BONES" — They get the work done!

-From Lake Erie ARA Newsletter

CVRA JOURNAL ADVERTISING RATE CARD (Effective 1-1-79)

AD DEADLINES ARE: JAN. 1, APR. 1, JULY 1, OCT. 1

	SIZE	PER ISSUE	CONTRACT PER ISSUE
INSIDE FRONT AND BACK COVER	6" x 7½"	$60.00	$55.00
FULL PAGE	6" x 7½"	40.00	35.00
ONE-HALF PAGE	6" x 3¾"	22.50	20.00
ONE-QUARTER PAGE	2⅞" x 3¾"	12.50	10.00
BUSINESS CARDS	Standard Size	9.00/yr. (In Advance)	
CLASSIFIED ADS	(30 word max)	1.75 per ad (In Advance)	
HAMFEST ADS	6" x 7½"	35.00 (In Advance)	

Rates above apply to exact size, camera ready ad copy. Composition and typesetting for full page ad approx. $12 to $15. Artwork or ad reductions/enlargements are $3.75 each. For color ads, ad $15.00.

Send all copy to: Ken Holliday, WA4DYY, 1923 Halifax Court, High Point, N.C. 27260. Contract advertising will be reinserted if no new copy received by deadline. Advertisers on contract may be billed quarterly if requested. Business Cards, Classified and Ham Fest ad insertions must be sent in Check with order.

CVRA NEWS NET SCORES QUICK ON WARC AMATEUR RESULTS

The CVRA News Net conducted on Wednesday nights on 220 mhz, and 2-meters in Piedmont North Carolina scored right on top when the World Administrative Radio Conference finished in Geneva Tuesday evening (Wednesday morning our time). The net had full breakdowns, band by band of WARC results on its 8:00 p.m. and 8:30 p.m. nets, thanks to Phil Wicker, W4ACY, ARRL, Roanoke Division Director.

Phil was on the phone with Vic Clark, W4KFC at ARRL headquarters as the WARC final results came over the teletype hookup from Geneva to headquarters. Vic passed the complete Amateur information over the phone to Phil, and he was on hand for the net some 8 hours later with all the information. incidentally, Phil is a fixture on the net almost every week, providing late ARRL news and information to listeners. The nets are conducted by Wayne, K4MOB and are entering their second year of operation. Other news is gleaned from the FCC, ARRL, CVRA, HR Report and ARRL RTTY Bulletins.

The net scored well last year when the FCC announced its decision concerning Autopatches on repeaters. The CVRA News Net Control and several helpers had it apread over most of North Carolina and into bordering states THAT SAME EVENING.

CVRA ANNUAL MEETING

Continued From Page 4

of the office. The Publications committee and Associate Membership committee chairmen were asked to have all printing bills sent directly to them for an ok before being sent to the treasurer for payment.

The treasurer reported the CVRA to be in sound financial condition. Carl Smith said the membership increases and advertising increases last year was what was needed to keep the treasury in condition to carry on business when cash flow from membership was slow during certain periods.

Karl Morris, WB8GDY, President of the West Virginia Amateur Radio Council told the group that the Amateurs in his State were looking forward to becoming a part of the CVRA. The board officially welcomed him, and voted to send word back "the CVRA welcomes the Amateurs of West Virginia into our folds, and we stand ready to assist in any way possible."

The meeting was adjourned at 3:00 p.m. after President Tarleton announced a second meeting to be held Saturday night March 22 at the Charlotte Hamfest. He said further progress reports on Tennessee and West Virginia will be heard, and further discussion of a name change for the organization will be brought up.

FCC HIGHLIGHTS

NOVEMBER . . . The FCC announced thatdue to budget cutbacks it will no longer be able to conduct Amateur radio examinations at Hamfests and Conventions. This does not effect regularly scheduled examinations given quarterly and/or semiannually at field examination sites. *-ARRL RTTY Bulletin*

OCTOBER . . . The FCC has given its staff the go ahead to prepare rules authorizing the use of the American Standard Code for Infogation Interchange (ASCII) by Amateur Radio operations. Amateurs may not use the ASCII on ham bands until the rules are actually written which might still be a few months away. *-ARRL RTTY Bulletin*

NOVEMBER . . . The FCC figures indicate that CB sales continue to decline. The number of CB transceivers imported during the last 9 months is down 83% from the same period in 1978. The imports totaled about 341,500 compared to over 2-million. *-HR Report #279*

NOVEMBER . . . The FCC decided that handicapped prospective Amateurs won't be given special CW or written exams. Also Chairman Ferris suggested after discussion that since CW was no longer much used by Amateurs or relevant to Amateur activities it should be dropped from the requirements of ALL Amateurs, not just the handicapped. As a result of this (HR Report sez) discussion, there appears to be a distinct possibility that the commission could be planning to drop CW requirements above 144 mhz. *-HR Report #278*

DECEMBER . . . Revised Amateur License Syllabi for Novice through Extra Class license exams have been released by the FCC. Copies should be available at Commission Field Offices sometimes this month (February) *-HR Report #283*

DECEMBER . . . The FCC General Council let it be known that in his judgment the present method of conducting Novice examinations by volunteer examiner was illegal. Carlos Roberts, chief of the Private Radio Bureau, said that his Bureau realized that a problem existed and would seek a solution. Meanwhile, the status quo holds concerning Novice examinations. *-ARRL Communications*

1979 HIGHLIGHTS (Courtesy HR Report) — FCC during the year abolished the Personal Radio Division and reorganized along functional lines, then moved all licensing to Gettysburg. Phase 1 of license fee refunds began in June, and the grace period for renewing an Amateur license without re-examination was extended to five years. The "restructuring" program, Docket 20282, was finally terminated in March, but ASCII use was OKed but not implemented by early January. No-prior-arrangement reciprocal licensing with Canada was approved in December, needing only Canadian agreement to go into effect. Special field exams were dropped for budget reasons in November, but the Commission waited until just before Christmas to drop its biggest bomb of the year, Legal's opinion that the volunteer examiner program was ILLEGAL and must be terminated.

calendar of coming events

The CVRA Journal will be glad to publish Events in your area taking place which are of interest to the entire area. Send information to CVRA Editor 1 month prior to Journal Publication date.

The following Hamfest dates have been supplied by clubs and by Phil Wicker, ARRL Roanoke Director. Tentative dates are marked with an asterisk.

1980 HAMFEST CALENDAR

FEBRUARY
24 . . . . . Winter Ham Fest, ELKIN, N.C.

MARCH
8-9 . . . . . COLUMBUS, GA.
22 . . . . . CVRA Board Meeting-CHARLOTTE, N.C.
22-23 . . . . . Metroliner-CHARLOTTE, N.C.

APRIL
6* . . . . . COLUMBIA, S.C.
18-19 . . . . AWA Regional, CHARLESTON, S.C.
20 . . . . . RARS - RALEIGH, N.C.

MAY
1 . . . . . GREENVILLE, S.C.
17-18 . . . . . DURHAM, N.C.
24-25 . . . . . GASTONIA, N.C.
24-25 . . . . . KNOXVILLE, TENN.

JUNE
1 . . . . . MANASSAS, VA.
21-22 . . . . . Ga. State ARRL Conv., - ATLANTA, GA.

JULY
5-6 . . . . . W. VA. State ARRL-JACKSON MILL, W.VA.
25-27 . . . . . NATIONAL ARRL-SEATTLE, WASH.

AUGUST
3 . . . . . WINCHESTER, VA.
16-17 . . . . . FAYETTEVILLE/FT. BRAGG, N.C.
17 . . . . . BRISTOL, TENN.
24 . . . . . BLUEFIELD, W.VA.
30-31* . . . . . SHELBY, N.C.
31* . . . . . MORGANTOWN, W.VA.

OCTOBER
5* . . . . . ROCK HILL, S.C.

FCC WILL BE AT CHARLOTTE!

Bill Parris, AA4R confirmed that the FCC will be at the Charlotte Metroliner Hamfest March 22-23. Although the FCC had announced that inadequate funds would end FCC exams at Hamfests and Conventions, they promised to honor committments. They had previously okayed the visit

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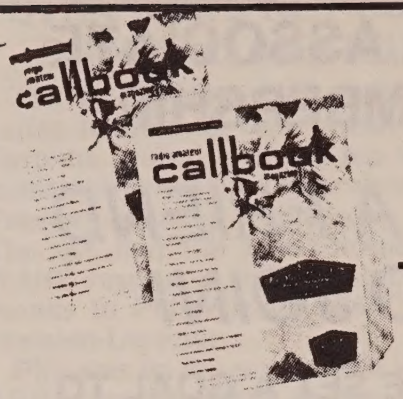

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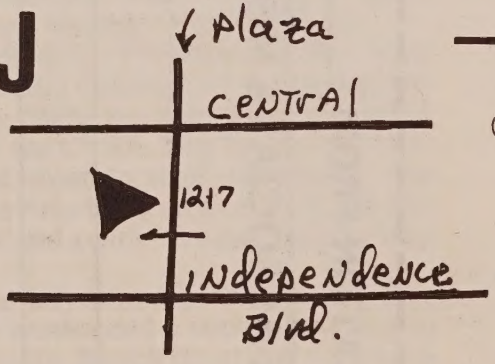

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CVRA JOURNAL now covering six states. $3.00 Associate Membership in CVRA for 1 year, gets you the JOURNAL free. Just clip out handy application form in this book, or send $3.00, name, address, phone, call to CVRA, P.O. Box 5655, Greensboro, N.C. 27403.

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220 MHZ EQUIPMENT AVAILABLE

Latest reports from Clegg indicate the Clegg FM-76 1979-80 production run should be available sometimes the early part of this month. This little 12-channel 220 mhz. FM rig was part of what a few years ago started the 220 boom.

For the past 6 months, only a few stray transceivers have been available to any amateur wishing to get on 220, with no manufacturers selling anything other than the expensive synthesized 220 equipment. A few Midland synthesized rigs are still around, and Yaesu has their unit also available. The Tempt S-2 Handheld synthesized is also available.

Rumors persist that Midland plans to come back out with a face-lifted version of the 13-509 (basically the same rig as the Clegg), although no one at Midland can give information, and the new Amateur Division head has gone to Japan for the company. So we'll have to sit and wait to see what Midland does.

Rumor also has it that a major 2-meter transceiver manufacturer is being surveyed by its American distributor about the feasibility of 220 equipment under their name.

Now that WARC '79 is over, and the 220 band is still intact, we should see much more availability in the future, as manufacturers finally face up to the fact that there is a hastily growing market for this band. (Editor)

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A LETTER FROM A READER

The CVRA Journal staff receives many nice letters from our readers. We thought we might share one with you. We'll withhold his name. Note he is not in CVRA Territory.

Dear CVRA:

Enclosed is $1.00 for four of your new CVRA Decals. Don't know how you folks do it, but consider your organization, your Journal and its contents first rate.

Keep up the fine job, and should you ever have the opportunity to encompass our area in your CVRA representation efforts, please do so.

If my personal membership (associate) is not renewed via the club (name withheld) let me know and I shall forward the necessary amount. 73. Signed: JWW

(Editor: Jack, we thank you very, very much. Letters like yours keep us going, and we someday just might encompass you.)

COLUMBUS HAMFEST MAR. 8-9

The Columbus Amateur Radio Club (Georgia) presents its annual Columbus Hamfest on March 8 & 9 at the 15,000 square foot Columbus Municipal Auditorium.

Plenty of booths and tables will be available with reasonable rates. Last year over 2,000 attended with over 35 exhibitors and they are expecting better for 1980. Further information may be obtained by writing or calling Jeannie Hunting, K4RHU, 2701 Peabody Ave., Columbus, Ga. 31904 (404) 322-7001.

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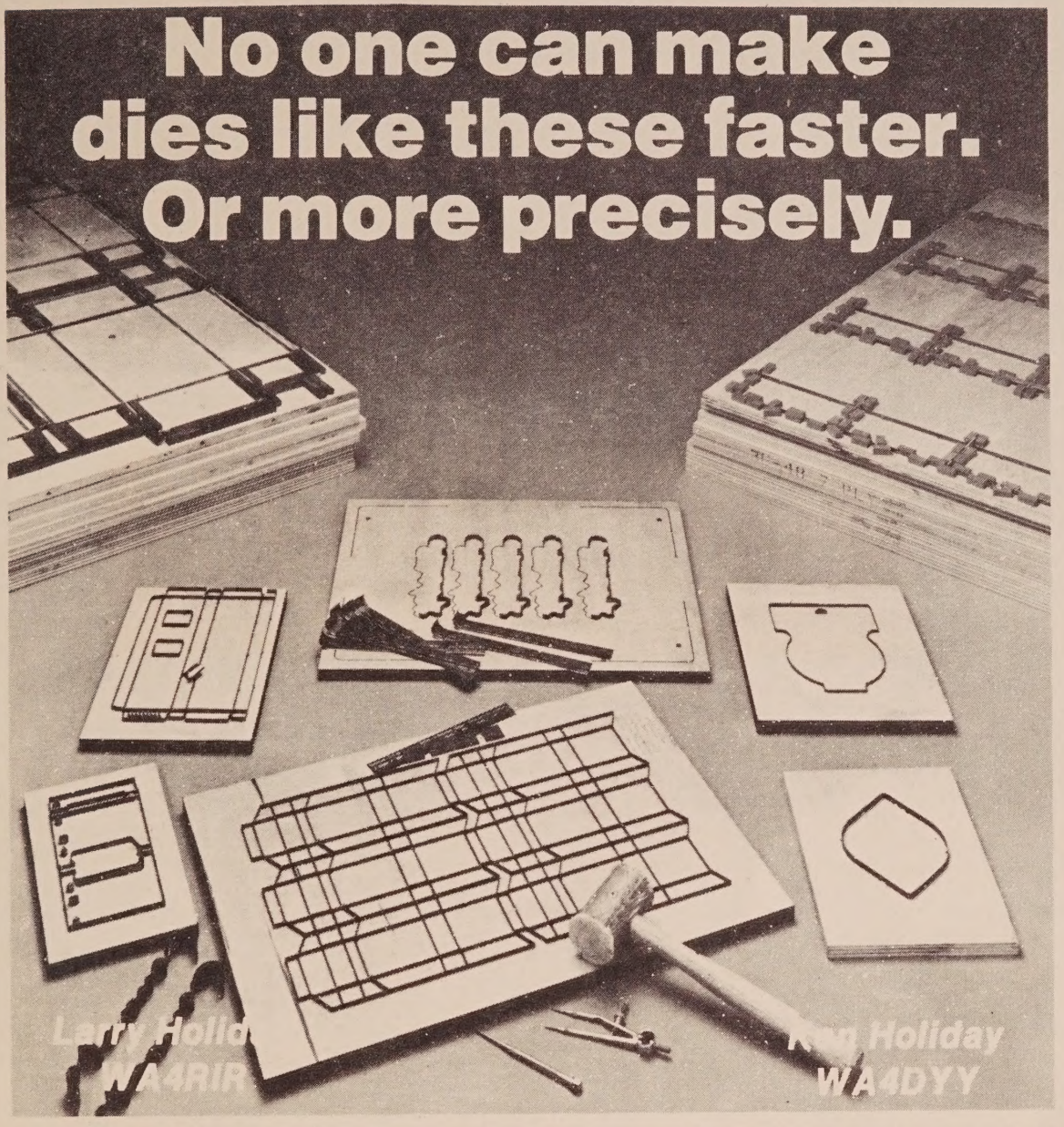

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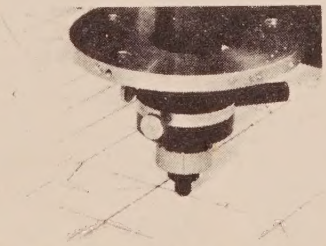

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